

CHARTER TOWNSHIP OF YPSILANTI BOARD OF TRUSTEES

Supervisor

BRENDA L. STUMBO

Clerk

DEBBIE SWANSON

Treasurer

STAN ELDRIDGE

Trustees

KAREN LOVEJOY ROE

JOHN P. NEWMAN II

GLORIA PETERSON

LARESHA THORNTON

July 15, 2025

Regular Meeting – 6:00 p.m.

**Ypsilanti Township Civic Center
7200 S. Huron River Drive
Ypsilanti, MI 48197**

DEPARTMENTAL REPORTS

CHARTER TOWNSHIP OF YPSILANTI FIRE DEPARTMENT

222 South Ford Boulevard, Ypsilanti, MI 48198
Phone 734-544-4225 Fax 734-544-4195



MONTHLY REPORT FOR JUNE 2025

Fire Department staffing levels are as follows:

1 Fire Chief	1 Fire Marshall	3 Shift Captains
21 Fire Fighters	3 Shift Lieutenants	1 Clerk III/Staff Support

All fire department response personnel are licensed as Emergency Medical Technicians by the State of Michigan Public Health. During the month, the fire department responded to **441** requests for assistance. Of those requests, **265** were medical emergency service calls, with the remaining **176** incidents classified as non-medical and/or fire related.

Department activities for the month of June 2025:

1) Smoke Alarms

The YTFD have recently joined with the State of Michigan Bureau of Fire Services to give out and install smoke alarms and carbon monoxide detectors in our resident's home. If interested, please contact the station at 222 S Ford Blvd to fill out an application and set up the installation. 734-544-4225

2) Fire fighters received training in the following areas:

- a) EV Training
- b) Extrication Training
- c) Hazmat Training

3) Pub Education

- a) Annual Bike Parade – Fairhills

The Fire Marshal had these activities / events for the month of June 2025:

1. Fire Investigations: 3
2. Fire Investigations interview: 2
3. Fire Investigations follow up: 3
4. Food Truck Development Program: 4
5. Food Truck Inspections: 2
6. Flow Test:
7. Building Inspections: 4
8. Building Re-inspections: 1
9. Memo/Letter writing: 5
10. Fire Lane Enforcement:
11. Liquor Inspections: 3
12. Junk Yard Inspections: 8
13. Firework tent inspections: 2
14. Business Tour: 1
15. Plan Reviews: 2
16. Site Plan Reviews:
17. Hood/ Fire Suppression Inspections:
18. Occupant Load Certificate: 1
19. Pre-Application Meeting: 1
20. Meetings: 9
21. Fire Alarm Test/Inspections:
22. Burn Permits: 2
23. Chief Meetings I attended: 1
24. Zoom Meeting: 1
25. Burn Complaints: 2
26. Knox Box: 1
27. Fire Drills:
28. Training: 2
29. Business/Community Engagement: 3
30. Citizen Engagement: 2
31. New Construction Site Visit:
32. Addressing: 1
33. Code Research: Weekly

The Fire Chief attended these meetings / events for the month of June 2025:

- Multiple 911 responses
- Fuel Reports
- Attending township board meetings
- Fire and EMS Response
- Officer meeting
- Chiefs meeting
- HVA roundtable discussions
- Board meetings
- Arbitration assistance with Twp. Attorney
- Assist fire inspector with fire inspections
- Several meetings with Supervisor Stumbo reference new equipment
- Attended the Fire chief's expo
- Attend EMS CE's schooling
- Attend Great Lake's homeland Security Conference
- Conducted interviews for new hires with township HR Department
- Asst. Milan fire department with blue card communications class weekend only
- Met with vendors regarding new equipment

The fire department stands ready to serve the community and the citizens at large of Ypsilanti Township. Thank you for allowing us to serve.

There were 0 injuries, and 0 deaths reported this month for civilians.

There were 0 injuries, and 0 deaths reported this month for Fire Fighters.

This month the total fire loss, including vehicle fires, is estimated at **\$405,600.00**.

All incidents occurred at the following locations:

Date of Loss	Address	Estimated Value	
06/02/2025	1996 Collegewood	0.00	(building fire)
06/02/2025	7373 Hogan Drive	190,000.00	(building fire)
06/09/2025	2940 International Drive	55,000.00	(building fire)
06/09/2025	1180 E Cross	0.00	(fire,other)
06/10/2025	6361 Oakbrook	1,000.00	(cooking fire)
6/12/2025	9999 Textile	20,000.00	(mobile property fire)
06/12/2025	1735 Smith	500.00	(cooking fire)
06/13/2025	6451 Meadowlark Lane	125,000.00	(building fire)
06/18/2025	257 S Wallace	10,000.00	(building fire)
06/23/2025	1323 Elmwood	0.00	(cooking fire)
06/23/2025	189 N Ohio Street	4,000.00	(vehicle fire)
06/24/2025	1296 Concord Drive	0.00	(cooking fire)
06/26/2025	1476 Seaver Way	100.00	(building fire)
06/27/2025	WB MI Ave/I-94	0.00	(vehicle fire)
06/28/2025	1450 Share Ave	0.00	(trash fire)
06/29/2025	5104 Brecken Ridge	0.00	(cooking fire)

Respectfully submitted

Maria Batianis

Charter Township of Ypsilanti Fire Department

Attachment: Image Trend Incident Type Report for 06/1/2025 – 06/30/2025

Monthly Incident Report's 2025

Basic Incident Type Code And Description (FD1.21)	Total Incidents	Total Incidents Percent of Incidents	Total Property Loss	Total Content Loss	Total Loss	Total Loss Percent of Total
Incident Type Category (FD1.21): 1 - Fire						
100 - Fire, other	2	0.45%				
111 - Building fire	6	1.36%	285,100.00	95,000.00	380,100.00	93.71%
113 - Cooking fire, confined to container	4	0.91%	1,000.00	500.00	1,500.00	0.37%
118 - Trash or rubbish fire, contained	1	0.23%				
130 - Mobile property (vehicle) fire, other	1	0.23%	10,000.00	10,000.00	20,000.00	4.93%
131 - Passenger vehicle fire	2	0.45%	4,000.00		4,000.00	0.99%
140 - Natural vegetation fire, other	1	0.23%				
Total: 17		Total: 3.85%	Total: 300,100.00	Total: 105,500.00	Total: 405,600.00	Total: 100.00%
Incident Type Category (FD1.21): 2 - Overpressure Rupture, Explosion, Overheat (No Fire)						
243 - Fireworks explosion (no fire)	1	0.23%				
Total: 1		Total: 0.23%	Total: 0.00	Total: 0.00	Total: 0.00	Total: 0.00%
Incident Type Category (FD1.21): 3 - Rescue & Emergency Medical Service Incident						
300 - Rescue, EMS incident, other	2	0.45%				
311 - Medical assist, assist EMS crew	140	31.75%				
320 - Emergency medical service, other	41	9.30%				
321 - EMS call, excluding vehicle accident with injury	70	15.87%				
322 - Motor vehicle accident with injuries	6	1.36%				
323 - Motor vehicle/pedestrian accident (MV Ped)	2	0.45%				
324 - Motor vehicle accident with no injuries.	4	0.91%				
Total: 265		Total: 60.09%	Total: 0.00	Total: 0.00	Total: 0.00	Total: 0.00%
Incident Type Category (FD1.21): 4 - Hazardous Condition (No Fire)						
400 - Hazardous condition, other	4	0.91%				
411 - Gasoline or other flammable liquid spill	1	0.23%				
412 - Gas leak (natural gas or LPG)	4	0.91%				
424 - Carbon monoxide incident	2	0.45%				
440 - Electrical wiring/equipment problem, other	3	0.68%				
442 - Overheated motor	3	0.68%				
444 - Power line down	1	0.23%				
445 - Arcing, shorted electrical equipment	2	0.45%				
480 - Attempted burning, illegal action, other	1	0.23%				
Total: 21		Total: 4.76%	Total: 0.00	Total: 0.00	Total: 0.00	Total: 0.00%
Incident Type Category (FD1.21): 5 - Service Call						
500 - Service call, other	9	2.04%				
510 - Person in distress, other	2	0.45%				
531 - Smoke or odor removal	5	1.13%				
542 - Animal rescue	1	0.23%				
550 - Public service assistance, other	5	1.13%				
551 - Assist police or other governmental agency	2	0.45%				
553 - Public service	1	0.23%				
554 - Assist invalid	3	0.68%				
561 - Unauthorized burning	2	0.45%				
Total: 30		Total: 6.80%	Total: 0.00	Total: 0.00	Total: 0.00	Total: 0.00%
Incident Type Category (FD1.21): 6 - Good Intent Call						
600 - Good intent call, other	1	0.23%				
611 - Dispatched and cancelled en route	66	14.97%				
622 - No incident found on arrival at	1	0.23%				

Basic Incident Type Code And Description (FD1.21)	Total Incidents	Total Incidents Percent of Incidents	Total Property Loss	Total Content Loss	Total Loss	Total Loss Percent of Total
dispatch address						
651 - Smoke scare, odor of smoke	4	0.91%				
Total: 72		Total: 16.33%	Total: 0.00	Total: 0.00	Total: 0.00	Total: 0.00%
Incident Type Category (FD1.21): 7 - False Alarm & False Call						
700 - False alarm or false call, other	24	5.44%				
733 - Smoke detector activation due to malfunction	1	0.23%				
735 - Alarm system sounded due to malfunction	1	0.23%				
736 - CO detector activation due to malfunction	3	0.68%				
743 - Smoke detector activation, no fire - unintentional	1	0.23%				
745 - Alarm system activation, no fire - unintentional	2	0.45%				
746 - Carbon monoxide detector activation, no CO	3	0.68%				
Total: 35		Total: 7.94%	Total: 0.00	Total: 0.00	Total: 0.00	Total: 0.00%
Total: 441		Total: 100.00%	Total: 300,100.00	Total: 105,500.00	Total: 405,600.00	Total: 100.00%



WASHTENAW COUNTY OFFICE OF THE SHERIFF

EST. 1823

ALYSHIA M. DYER, SHERIFF



EXECUTIVE SUMMARY

Distribution Date: 7/8/2025

June 2025

WCSO Patrol Operations responded to calls for service, conducted traffic enforcement, and completed criminal investigations in support of our community's quality of life.

During June 2025, there were 3,160 calls for service in Ypsilanti Twp. This is a 11.9 % decrease compared to the previous year.

Please refer to the *Monthly Data Report* for the complete overview of Police Services data for the month.

SIGNIFICANT INCIDENTS:

Below are the incidents WCSO deemed significant for your area. If you require additional information on a specific incident, please contact your area Lieutenant.

INCIDENT #	DATE	VERIFIED OFEENSE
25-39366	6/14/2025	Fatal Single VehicleTraffic Crash
25-40394	6/18/2025	Fatal Car vs Bicyclist
25-40470	6/18/2025	Arson
25-43051	6/28/2025	Strong-Arm Robbery
25-43405	6/30/2025	Reckless Discharge



WASHTENAW COUNTY OFFICE OF THE SHERIFF

EST. 1823

ALYSHIA M. DYER, SHERIFF



EXECUTIVE SUMMARY

Distribution Date: 7/8/2025

June 2025

COMMUNITY DIRECTED ENFORCEMENT

DATE	LOCATION	COMPLAINT	INITIATIVES
6/4/2025	Fortis Academy	Illegal Parking	Assigned to Road Patrol
6/10/2025	Oaklawn/Hawthorne	Speeding/racing on Ecorse and Harris	Assigned to Road Patrol and Traffic
6/18/2025	Georgetown Condos	Racing and minibikes on Textile and Tuttle Hill	Assigned to Road Patrol
6/18/2025	West Willow	Minibikes and motorcycles racing/speeding	Assigned to Road Patrol
6/23/2025	Gault Village	Speeding on Grove and Harris	Assigned to Road Patrol
6/24/2025	Sugarbrook/Wingate	Speeding on Grove	Assigned to Road Patrol
6/30/2025	Oakridge Apartments	Patrol request during PM. Juveniles riding minibikes	Assigned to Road Patrol

STAFFING

Platoon A (Days)	Platoon B (Days)	Platoon A (Nights)	Platoon B (Nights)
6 Assigned (1 CRU) 1 Vacancy	5 Assigned 1 Vacancy (FMLA)	6 Assigned 1 Vacancy	6 Assigned 1 Vacancy
Noon A	Noon B	CAT	Traffic
1 Assigned 1 Vacancy	1 Assigned 1 Vacancy	3 Assigned	1 Vacancy

29 / 35 Deputies (Billable for 28)

NHW CSO: 1 Assigned



WASHTENAW COUNTY OFFICE OF THE SHERIFF

EST. 1823

ALYSHIA M. DYER, SHERIFF



EXECUTIVE SUMMARY

Distribution Date: 7/8/2025

June 2025

YOUTH INITIATIVE

The Sheriff's Office continues to partner with courts, probation, and social services to ensure that there is accountability beyond the Sheriff's Office contact with the offenders that are consistently involved in crimes.

COMMUNITY ACTION TEAM

The purpose of the Community Action Team (CAT) is to respond to situations involving or with a nexus of drugs, guns, or violence. The team focuses on the timely assessment and response to tips they receive from our community and community problems identified through crime pattern analysis.

CAT collaboration with the Michigan Department of Corrections in reference to parole compliance contributes to effective monitoring and management of parolees who live in our community. Timely and efficient response to tips regarding parolee misconduct combined with regular unannounced home visits are expected by the parolees that reside in Ypsilanti Township and surrounding areas.

For any violent crime tips related to guns, gang activity or violence in general please call 734-661-9034.

WASHTENAW ALERT (EVERBRIDGE)

As a reminder for residents, they can sign up for "Up-to-the-minute updates" from the Washtenaw County Sheriff's Office by email or cell phone at www.washtenaw.org/alerts

HOUSE WATCH

If you plan on being gone for a period of time sign your house up for house checks. The house watch form can be found at: <https://www.washtenaw.org/1743/House-Watch>

NEW FACES

The Sheriff's Office is hiring! We continue to hire highly qualified, motivated, and diverse people that are committed to pursuing our mission: "Together, we are committed to creating a safer, more just, and compassionate Washtenaw County for all".

If you are interested in joining us in serving your community in Police Services, Corrections, Communications, Emergency Services or Community Corrections please check us out at: <https://www.washtenaw.org/1124/Sheriff>

We have rewarding career opportunities available for those seeking a profession with a greater purpose.

Police Service Data Report

Reporting Period: June



Incidents	Month 2025	Month 2024	% Change
Animal Complaints	68	96	-29.2%
Assaultive Crimes	51	55	-7.3%
Burglaries	10	8	25.0%
Larcenies	28	18	55.6%
Medical Assists	40	60	-33.3%
OWI	3	7	-57.1%
Robberies	2		-
Traffic Crashes	106	73	45.2%
Traffic Stops	391	841	-53.5%
Vehicle Theft	8	14	-42.9%
Calls For Service Total	3,160	3,588	-11.9%
Community Engagement	1		-
Citations	59		
In/Out of Area Time		Minutes	
Into Area Time		1,376	
Secondary Road Patrol - Into Area		3,970	
Out of Area Time		4,110	

Into Area Time: The time that other areas contracted deputies spent in YPT. ACO, SRP, Command, Countywide, and DB are excluded.

Out of Area Time: Time that YPT contracted deputies spent anywhere other than YPT, including non-contract areas.

Secondary Road Patrol – Into Area: The time SRP spent in YPT.



CFS Summary

Reporting Period: June



Classification	Month 2025	Month 2024	% Change
AGGRAVATED/FELONIOUS ASSAULT	24	25	-4.0%
ANIMAL CRUELTY		2	-100.0%
ARSON	1	1	0%
BURGLARY -ENTRY WITHOUT FORCE (Intent to Commit)	1	5	-80.0%
BURGLARY -FORCED ENTRY	10	4	150.0%
DAMAGE TO PROPERTY	29	21	38.1%
EMBEZZLEMENT	2		-
FORGERY/COUNTERFEITING	2	7	-71.4%
FRAUD -CREDIT CARD/AUTOMATIC TELLER MACHINE		1	-100.0%
FRAUD -FALSE PRETENSE/SWINDLE/CONFIDENCE GAME	6	4	50.0%
FRAUD - IDENTITY THEFT	5	1	400.0%
FRAUD -WIRE FRAUD	1	1	0%
INTIMIDATION/STALKING	10	6	66.7%
KIDNAPPING/ABDUCTION	1	2	-50.0%
LARCENY -OTHER	6	10	-40.0%
LARCENY -PURSES/NATCHING		1	-100.0%
LARCENY -THEFT FROM BUILDING	13	2	550.0%
LARCENY -THEFT FROM MOTOR VEHICLE	10	7	42.9%
LARCENY -THEFT OF MOTOR VEHICLE PARTS/ACCESSORIES	1		-
MOTOR VEHICLE, AS STOLEN PROPERTY	2	1	100.0%
MOTOR VEHICLE THEFT	9	15	-40.0%
NARCOTIC EQUIPMENT VIOLATIONS		4	-100.0%
NEGLIGENT HOMICIDE/MANSLAUGHTER (INVOLUNTARY)		1	-100.0%
NONAGGRAVATED ASSAULT	31	38	-18.4%
OBSCENITY		1	-100.0%
RETAIL FRAUD -THEFT	5	3	66.7%
ROBBERY	3	7	-57.1%
SEXUAL CONTACT FORCIBLE -CSC 2ND DEGREE	1	1	0%
SEXUAL CONTACT FORCIBLE -CSC 4TH DEGREE	1		-
SEXUAL PENETRATION ORAL/ANAL -CSC 1ST DEGREE		2	-100.0%
SEXUAL PENETRATION PENIS/VAGINA -CSC 3RD DEGREE	1	2	-50.0%



CFS Summary

Reporting Period: June



SEXUAL PENETRATION PENIS/VAGINA -CSC IST DEGREE		2	-100.0%
STOLEN PROPERTY	2	3	-33.3%
VIOLATION OF CONTROLLED SUBSTANCE ACT	1	9	-88.9%
WEAPONS OFFENSE- CONCEALED	7	13	-46.2%
WEAPONS OFFENSE -OTHER	3	3	0%
Sum:	188	205	

Classification	Month 2025	Month 2024	% Change
BURGLARY - UNLAWFUL ENTRY (NO INTENT)	1	1	0%
DISORDERLY CONDUCT	1	1	0%
FAMILY -ABUSE/NEGLECT NONVIOLENT	3	9	-66.7%
FRAUD -BAD CHECKS		2	-100.0%
HEALTH AND SAFETY	3	4	-25.0%
JUVENILE RUNAWAY	6	11	-45.5%
LIQUOR VIOLATIONS -OTHER	1		-
MISCELLANEOUS CRIMINAL OFFENSE	3	10	-70.0%
NEGLIGENT HOMICIDE -VEHICLE/BOAT		1	-100.0%
OBSTRUCTING JUSTICE	16	13	23.1%
OBSTRUCTING POLICE	18	16	12.5%
OPERATING UNDER THE INFLUENCE OF LIQUOR OR DRUGS	5	8	-37.5%
PUBLIC PEACE -OTHER	1		-
SEX OFFENSE -OTHER		1	-100.0%
TRESPASS	3	1	200.0%
Sum:	61	78	

Classification	Month 2025	Month 2024	% Change
ALARMS	83	85	-2.4%
ANIMAL COMPLAINTS	79	110	-28.2%
JUVENILE OFFENSES AND COMPLAINTS	32	45	-28.9%
MISCELLANEOUS COMPLAINTS	800	819	-2.3%
MISCELLANEOUS TRAFFIC COMPLAINTS	449	949	-52.7%
NON - CRIMINAL COMPLAINTS	889	864	2.9%
SICK / INJURY COMPLAINT	154	239	-35.6%
TRAFFIC CRASHES	106	75	41.3%



CFS Summary

Reporting Period: June



TRAFFIC OFFENSES	21	20	5.0%
WARRANTS	24	34	-29.4%
WATERCRAFT COMPLAINTS / ACCIDENTS	4	1	300.0%
Sum:	2,641	3,241	

Classification	Month 2025	Month 2024	% Change
HAZARDOUS TRAFFIC CITATIONS / WARNINGS	1	1	0%
MISCELLANEOUS A THROUGH UUUU	18	26	-30.8%
PARKING CITATIONS		1	-100.0%
Sum:	19	28	

Classification	Month 2025	Month 2024	% Change
CANINE ACTIVITIES	5		-
COURT / WARRANT ACTIVITIES	6		-
CRIME PREVENTION ACTIVITIES	7	7	0%
INVESTIGATIVE ACTIVITIES	120	62	93.5%
MISCELLANEOUS ACTIVITIES (6000)	85	55	54.5%
MISCELLANEOUS ACTIVITIES (6100)	113	97	16.5%
Sum:	336	221	

Sum:	3,245	3,773	
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CCW Report

Reporting Period: June



Incident Number	Report Date	Offense	Case Status Disposition
250037575	06/07/25	CCW-Concealed Weapons - Carrying Concealed	Pending Prosecutors Review
250038114	06/09/25	Concealed Weapons - Firearm in Auto (CCW)	Pending Prosecutors Review
250039684	06/15/25	Concealed Weapons - Firearm in Auto (CCW)	Petition (Del Proceedings) Minor
250040252	06/18/25	Concealed Weapons - Firearm in Auto (CCW)	Pending Prosecutors Review
250040864	06/20/25	CCW-Concealed Weapons - Carrying Concealed	Petition (Del Proceedings) Minor
250042023	06/24/25	Concealed Weapons - Firearm in Auto (CCW)	Petition (Del Proceedings) Minor
250043363	06/29/25	Concealed Weapons - Firearm in Auto (CCW)	Lack of Leads/Elements



Out of Area Report

Reporting Period: June



ANN ARBOR CITY

Incident #	Patrol Area Desc	Activity Category	Activity Start Date	Duration in Minutes
250041151	YPSILANTI TWP	DISPATCHED CALLS	06/21/2025 17:05:00	35
250043036	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/28/2025 18:05:00	30
			Sum:	65

ANN ARBOR TWP

Incident #	Patrol Area Desc	Activity Category	Activity Start Date	Duration in Minutes
250038139	YPSILANTI TWP	BACK-UP TRAFFIC STOP	06/10/2025 01:00:00	25
250038141	YPSILANTI TWP	DISPATCHED CALLS	06/10/2025 01:10:00	30
250040667	YPSILANTI TWP	DISPATCHED CALLS	06/19/2025 19:10:00	65
			Sum:	120

AUGUSTA TWP

Incident #	Patrol Area Desc	Activity Category	Activity Start Date	Duration in Minutes
250039657	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/15/2025 22:00:00	15
250040183	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/17/2025 20:40:00	24
250043387	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/29/2025 23:10:00	35
250043387	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/29/2025 23:10:00	40
			Sum:	114

COUNTY OWNED PROPERTY

Incident #	Patrol Area Desc	Activity Category	Activity Start Date	Duration in Minutes
250040667	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/19/2025 19:09:00	82
250040667	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/19/2025 19:10:00	50
250040667	YPSILANTI TWP	DISPATCHED CALLS	06/19/2025 19:10:00	80
			Sum:	212



Out of Area Report

Reporting Period: June



DEXTER CITY

Incident #	Patrol Area Desc	Activity Category	Activity Start Date	Duration in Minutes
	YPSILANTI TWP		06/28/2025 16:00:00	15
	YPSILANTI TWP		06/28/2025 16:15:00	210
	YPSILANTI TWP		06/28/2025 19:45:00	15
			Sum:	240

DEXTER TOWNSHIP

Incident #	Patrol Area Desc	Activity Category	Activity Start Date	Duration in Minutes
250043158	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/29/2025 02:20:00	25
	YPSILANTI TWP	BRIEFING/SHIFT BRIEFING	06/07/2025 20:01:00	29
	YPSILANTI TWP		06/07/2025 21:00:00	120
	YPSILANTI TWP		06/07/2025 23:40:00	21
			Sum:	195



Out of Area Report

Reporting Period: June



MACARTHUR BLVD CONTRACT

Incident #	Patrol Area Desc	Activity Category	Activity Start Date	Duration in Minutes
250036160	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/02/2025 02:00:00	15
250036384	YPSILANTI TWP	FOLLOW-UP	06/02/2025 20:40:00	40
250036694	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/04/2025 04:55:00	20
250036694	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/04/2025 04:58:00	19
250037164	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/06/2025 03:30:00	20
250037180	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/06/2025 06:40:00	40
250039677	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/15/2025 22:50:00	10
250039677	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/15/2025 22:55:00	5
250039958	YPSILANTI TWP	BACK-UP TRAFFIC STOP	06/17/2025 02:10:00	10
250040751	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/20/2025 04:15:00	30
250041037	YPSILANTI TWP	DISPATCHED CALLS	06/21/2025 04:00:00	15
250042675	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/27/2025 12:00:00	30
250042675	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/27/2025 12:05:00	15
250042675	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/27/2025 12:05:00	25
			Sum:	294

OUT OF COUNTY

Incident #	Patrol Area Desc	Activity Category	Activity Start Date	Duration in Minutes
250038888	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/12/2025 17:50:00	60
250039445	YPSILANTI TWP	DISPATCHED CALLS	06/14/2025 22:15:00	10
250039472	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/15/2025 00:25:00	30
250039472	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/15/2025 00:25:00	35
250042130	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/25/2025 12:00:00	90
250042130	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/25/2025 12:10:00	80
			Sum:	305



Out of Area Report

Reporting Period: June



PITTSFIELD TOWNSHIP

Incident #	Patrol Area Desc	Activity Category	Activity Start Date	Duration in Minutes
250038888	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/12/2025 18:11:00	28
250039354	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/14/2025 14:55:00	10
250041829	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/24/2025 09:15:00	5
			Sum:	43

SCIO TOWNSHIP

Incident #	Patrol Area Desc	Activity Category	Activity Start Date	Duration in Minutes
250036422	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/03/2025 02:20:00	10
250041156	YPSILANTI TWP	DISPATCHED CALLS	06/21/2025 17:40:00	20
			Sum:	30



Out of Area Report

Reporting Period: June



SUPERIOR TWP

Incident #	Patrol Area Desc	Activity Category	Activity Start Date	Duration in Minutes
250036338	YPSILANTI TWP	DISPATCHED CALLS	06/02/2025 16:55:00	25
250036452	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/03/2025 09:25:00	65
250036661	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/04/2025 00:49:00	19
250036672	YPSILANTI TWP	TRAFFIC STOP	06/04/2025 01:55:00	5
250037201	YPSILANTI TWP	DISPATCHED CALLS	06/06/2025 09:00:00	20
250037732	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/08/2025 09:30:00	5
250038155	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/10/2025 03:35:00	15
250038155	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/10/2025 03:40:00	10
250038155	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/10/2025 03:45:00	15
250038680	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/11/2025 23:35:00	15
250038705	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/12/2025 02:25:00	65
250038819	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/12/2025 13:50:00	130
250038819	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/12/2025 13:55:00	120
250038819	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/12/2025 13:55:00	125
250038819	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/12/2025 14:00:00	90
250038819	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/12/2025 14:00:00	120
250039945	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/17/2025 00:05:00	30
250039945	YPSILANTI TWP	DISPATCHED CALLS	06/17/2025 00:05:00	66
250040082	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/17/2025 15:10:00	10
250040955	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/20/2025 20:40:00	60
250041309	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/22/2025 10:30:00	35
250041988	YPSILANTI TWP	DISPATCHED CALLS	06/24/2025 20:30:00	50
250042132	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/25/2025 12:25:00	35
250042486	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/26/2025 18:35:00	30
250043066	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/28/2025 20:40:00	5
250043149	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/29/2025 01:15:00	15
250043198	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/29/2025 09:25:00	47
	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/12/2025 14:30:00	90
		Sum:		1,317



Out of Area Report

Reporting Period: June



WEBSTER TOWNSHIP

Incident #	Patrol Area Desc	Activity Category	Activity Start Date	Duration in Minutes
250036127	YPSILANTI TWP	DISPATCHED CALLS	06/01/2025 23:35:00	20
250037627	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/07/2025 20:30:00	30
250037667	YPSILANTI TWP	DISPATCHED CALLS	06/07/2025 23:00:00	40
			Sum:	90



Out of Area Report

Reporting Period: June



YPSILANTI CITY

Incident #	Patrol Area Desc	Activity Category	Activity Start Date	Duration in Minutes
250036390	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/02/2025 20:50:00	10
250036935	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/05/2025 03:05:00	5
250037386	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/06/2025 20:30:00	10
250037386	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/06/2025 20:30:00	15
250037694	YPSILANTI TWP	TRAFFIC STOP	06/08/2025 02:05:00	5
250037834	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/08/2025 17:40:00	15
250037834	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/08/2025 17:40:00	25
250037834	YPSILANTI TWP	DISPATCHED CALLS	06/08/2025 17:40:00	15
250039211	YPSILANTI TWP	TRAFFIC STOP	06/13/2025 21:30:00	5
250039624	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/15/2025 19:20:00	15
250039624	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/15/2025 19:30:00	10
250039632	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/15/2025 19:35:00	10
250039708	YPSILANTI TWP	BACK-UP TRAFFIC STOP	06/16/2025 01:45:00	10
250039708	YPSILANTI TWP	BACK-UP TRAFFIC STOP	06/16/2025 01:45:00	15
250039708	YPSILANTI TWP	DISPATCHED CALLS	06/16/2025 01:40:00	155
250040831	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/20/2025 12:15:00	30
250040904	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/20/2025 16:30:00	40
250041223	YPSILANTI TWP	TRAFFIC STOP	06/21/2025 22:35:00	20
250041359	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/22/2025 14:45:00	30
250041708	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/23/2025 20:35:00	40
250041708	YPSILANTI TWP	TRAFFIC STOP	06/23/2025 20:40:00	40
250041914	YPSILANTI TWP	TRAFFIC STOP	06/24/2025 15:35:00	5
250042186	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/25/2025 16:05:00	40
250042295	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/25/2025 23:00:00	30
250042469	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/26/2025 16:45:00	50
250042786	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/27/2025 18:45:00	5
250042792	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/27/2025 19:20:00	15
250042865	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/28/2025 01:45:00	10
			Sum:	675



Into Area Report

Reporting Period: June



ANN ARBOR-SUPERIOR TWP COLLABORATION

Incident #	Reporting Area	Activity Category	Activity Start Date	Duration in Minutes
250035906	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/01/2025 01:30:00	30
250035906	YPSILANTI TWP	DISPATCHED CALLS	06/01/2025 01:25:00	35
250035944	YPSILANTI TWP		06/01/2025 08:50:00	60
250036139	YPSILANTI TWP	DISPATCHED CALLS	06/01/2025 23:40:00	10
250036166	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/02/2025 02:45:00	50
250037506	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/07/2025 11:25:00	30
250037506	YPSILANTI TWP	DISPATCHED CALLS	06/07/2025 10:45:00	70
250037519	YPSILANTI TWP	DISPATCHED CALLS	06/07/2025 12:20:00	25
250037564	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/07/2025 14:55:00	50
250037564	YPSILANTI TWP	DISPATCHED CALLS	06/07/2025 14:45:00	65
250037575	YPSILANTI TWP	DISPATCHED CALLS	06/07/2025 15:50:00	5
250038222	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/10/2025 11:30:00	50
250038222	YPSILANTI TWP	DISPATCHED CALLS	06/10/2025 11:30:00	45
250038257	YPSILANTI TWP	DISPATCHED CALLS	06/10/2025 13:35:00	30
250038275	YPSILANTI TWP	DISPATCHED CALLS	06/10/2025 15:15:00	80
250038343	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/10/2025 21:00:00	20
250038369	YPSILANTI TWP	DISPATCHED CALLS	06/10/2025 21:15:00	5
250038527	YPSILANTI TWP	DISPATCHED CALLS	06/11/2025 13:30:00	20
250038950	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/12/2025 21:35:00	10
250039175	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/13/2025 19:00:00	20
250039609	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/15/2025 18:00:00	50
250040135	YPSILANTI TWP	BACK-UP TRAFFIC STOP	06/17/2025 18:05:00	35
250041022	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/21/2025 02:20:00	10
250041135	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/21/2025 16:15:00	15
250041233	YPSILANTI TWP	BACK-UP TRAFFIC STOP	06/21/2025 23:40:00	20
250041272	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/22/2025 05:45:00	45
250041785	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/24/2025 02:50:00	30
250042514	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/26/2025 19:15:00	15
250042571	YPSILANTI TWP	BACK-UP TRAFFIC STOP	06/26/2025 22:40:00	80



Into Area Report

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250042578	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/26/2025 22:50:00	70
250042589	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/27/2025 02:20:00	15
250042597	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/27/2025 03:40:00	75
250042626	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/27/2025 09:20:00	15
250043060	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/28/2025 20:16:00	47
250043606	YPSILANTI TWP	DISPATCHED CALLS	06/30/2025 22:21:00	54
			Sum:	1,286

SECONDARY ROAD PATROL

Incident #	Reporting Area	Activity Category	Activity Start Date	Duration in Minutes
250036227	YPSILANTI TWP	DISPATCHED CALLS	06/02/2025 10:35:00	65
250036227	YPSILANTI TWP	REPORT WRITING	06/02/2025 11:02:00	0
250036241	YPSILANTI TWP	DISPATCHED CALLS	06/02/2025 11:40:00	10
250036252	YPSILANTI TWP	DISPATCHED CALLS	06/02/2025 12:10:00	35
250036252	YPSILANTI TWP	REPORT WRITING	06/02/2025 13:45:00	0
250036260	YPSILANTI TWP	DISPATCHED CALLS	06/02/2025 12:45:00	45
250036260	YPSILANTI TWP	REPORT WRITING	06/02/2025 13:45:00	0
250036492	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/03/2025 13:25:00	20
250036495	YPSILANTI TWP	CITATIONS	06/03/2025 13:00:00	0
250036495	YPSILANTI TWP	TRAFFIC STOP	06/03/2025 12:55:00	15
250036510	YPSILANTI TWP	CITATIONS	06/03/2025 14:05:00	0
250036510	YPSILANTI TWP	TRAFFIC STOP	06/03/2025 13:55:00	15
250036519	YPSILANTI TWP	DISPATCHED CALLS	06/03/2025 14:10:00	95
250036754	YPSILANTI TWP	CITATIONS	06/04/2025 11:55:00	0
250036754	YPSILANTI TWP	TRAFFIC STOP	06/04/2025 11:50:00	15
250036761	YPSILANTI TWP	DISPATCHED CALLS	06/04/2025 12:45:00	0
250036776	YPSILANTI TWP	TRAFFIC STOP	06/04/2025 13:50:00	15
250036991	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/05/2025 12:20:00	15
250036998	YPSILANTI TWP	TRAFFIC STOP	06/05/2025 12:10:00	10
250037255	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/06/2025 12:30:00	40
250037271	YPSILANTI TWP	TRAFFIC STOP	06/06/2025 13:30:00	15
250037306	YPSILANTI TWP	CITATIONS	06/06/2025 15:30:00	0



Into Area Report

Reporting Period: June



250037306	YPSILANTI TWP	TRAFFIC STOP	06/06/2025 15:25:00	10
250037308	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/06/2025 15:35:00	5
250038090	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/09/2025 19:55:00	35
250039366	YPSILANTI TWP	DISPATCHED CALLS	06/14/2025 16:01:00	465
250040394	YPSILANTI TWP	DISPATCHED CALLS	06/18/2025 16:45:00	570
250040394	YPSILANTI TWP	REPORT WRITING	06/20/2025 13:43:00	0
250042911	YPSILANTI TWP	CITATIONS	06/28/2025 09:55:00	0
250042911	YPSILANTI TWP	TRAFFIC STOP	06/28/2025 09:50:00	15
250042923	YPSILANTI TWP	TRAFFIC STOP	06/28/2025 10:40:00	15
	YPSILANTI TWP	COURT	06/06/2025 10:15:00	90
	YPSILANTI TWP	COURT	06/10/2025 08:30:00	100
	YPSILANTI TWP	COURT	06/26/2025 12:45:00	45
	YPSILANTI TWP	FOLLOW-UP	06/02/2025 13:30:00	75
	YPSILANTI TWP	FOLLOW-UP	06/17/2025 08:45:00	60
	YPSILANTI TWP	FOLLOW-UP	06/17/2025 09:45:00	195
	YPSILANTI TWP	FOLLOW-UP	06/20/2025 07:30:00	570
	YPSILANTI TWP	REPORT WRITING	06/25/2025 13:00:00	180
	YPSILANTI TWP		06/02/2025 11:50:00	20
	YPSILANTI TWP		06/03/2025 13:45:00	10
	YPSILANTI TWP		06/04/2025 09:00:00	110
	YPSILANTI TWP		06/04/2025 10:50:00	60
	YPSILANTI TWP		06/04/2025 11:35:00	70
	YPSILANTI TWP		06/04/2025 13:15:00	45
	YPSILANTI TWP		06/04/2025 13:35:00	15
	YPSILANTI TWP		06/04/2025 14:05:00	85
	YPSILANTI TWP		06/04/2025 14:20:00	25
	YPSILANTI TWP		06/05/2025 14:15:00	90
	YPSILANTI TWP		06/06/2025 13:10:00	20
	YPSILANTI TWP		06/06/2025 14:30:00	55
	YPSILANTI TWP		06/18/2025 08:35:00	75
	YPSILANTI TWP		06/18/2025 13:00:00	30
	YPSILANTI TWP		06/19/2025 08:00:00	330
	YPSILANTI TWP		06/25/2025 11:00:00	90



Into Area Report

Reporting Period: June



			Sum:	3,970
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YORK TWP

Incident #	Reporting Area	Activity Category	Activity Start Date	Duration in Minutes
250037118	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/05/2025 21:50:00	25
250040394	YPSILANTI TWP	BACKUP DISPATCHED CALLS	06/18/2025 16:20:00	65
			Sum:	90

Violations

Reporting Period: June



Violation Description	Violation Count
APPROACHING AND PASSING EMERGENCY VEHICLE	1
CARELESS DRIVING	1
DISOBEYED STOP SIGN	3
DISOBEYED TRAFFIC CONTROL DEVICE/REGULATOR	1
DISOBEYED TRAFFIC SIGNAL	1
DOGS AT LARGE/ NOT UNDER CONTROL	2
DROVE UNREGISTERED VEHICLE	3
DROVE WITH NO LICENSE / NEVER ACQUIRED	1
DROVE WRONG WAY ON ONE-WAY STREET	1
DWLS - DROVE WHILE LICENSE SUSP/REV/DENIED	1
EXPIRED PLATE	6
FAILED TO STOP WITHIN ASSURED CLEAR DISTANCE	3
FAILED TO YIELD	2
FAILED TO YIELD TO PEDESTRIAN	2
HANDICAP PARKING	1
IMPROPER LANE USE	1
IMPROPER PLATES	1
LIMITED ACCESS SPEEDING 01-05 OVER	1
LIMITED ACCESS SPEEDING 21-25 OVER	1
LITTERING - C/I ORDINANCE	1
NO MOTORCYCLE ENDORSEMENT	1
NO PROOF OF INSURANCE	3
NUISANCE DOG / NOISE DOG / VICIOUS DOG	1
OPERATE WITHOUT SECURITY (NO INSURANCE)	2
PARKING LEFT TO CURB	2
POSSESSING / USING TOBACCO PERSON UNDER 18 IN PUBLIC PLACE	1
POSSESSION OPEN INTOX	1
PRELIMINARY BREATH TEST REFUSAL IN NON-CMV	1
SPEEDING 01-05 OVER	5
SPEEDING 06-10 OVER	3
SPEEDING 11-15 OVER	2
SPEEDING SCHOOL ZONE 01-05 OVER	1



Violations

Reporting Period: June



VIOLATION OF BASIC SPEED LAW	1
VIOLATION OF CHILD RESTRAINT LAW	1
Sum:	59



Traffic Stops

Reporting Period: June



TS Reason For Contact	Activities Count
Assist	1
Belt/Restraint	1
Crime BOL	3
Equipment Vio	82
Other	26
Speed	152
Traffic Vio.	125
	390



Date: July 2, 2025
To: Clerk's Office
CC: Brenda Stumbo, Supervisor
From: Michael Saranen, Operation Manager

Subject: Department Report (activities in June 2025)

Activities:

Ford Lake Dam (Hydro Station)

General Operation Summary:

The Hydro Station is operating safely and continues to get routine safety inspections and preventive maintenance. Operators had 2 after hour call-in for the month.

Average precipitation for the month of is around 3.26", for this month NOAA recorded it to be 3.69".

Regulatory Status:

For 2025-

- DSSMR- **Complete, filed w/FERC**
- Owners Dam Safety Program Review/Update - **Completed**
- EAP annual update and test –
- EAP First Responder Training - **Complete**
- WQ Report – **Monitoring Started, collecting data**
- Nuisance Plant Plan Report – **Started**
- Wildlife Plan Report -
- Historical Activity Report –
- Gate Certification -
- Security Review – **Started**
- FERC Security Inspection – **Done, addressing comments**
- FERC Annual Dam Safety Inspection – **Done, waiting on comments**
- Annual DEQ Lake Operation Monitoring Report- **Complete**
- Spillway Assessment Action Plan - **Filed, addressing comments by FERC, Ongoing**
- Public Safety Plan - **Complete**
- Fish & Sediment Analysis - Not required until 2033
- Shoreline Erosion Survey – **Started**
- Emergency generator testing/maintenance – **Scheduling**

- EAP Rewrite – **Started**
- Owners Dam Safety Audit- **Barr Engineering is proposed, waiting on FERC approval**
- 2025 Part 12D Comprehensive Analysis – **Started, document review phase (due March 2027)**

Future Items:

- Shoreline Restoration, Ford Lake Park
- PMF Study for watershed – Discussing
- Protective Relay testing – Due again 2031
- Concrete repairs – **On Hold, planning to include in 2026 budget**
- Windows/additional concrete repairs (powerhouse and dam) - TBD
- EAP Tabletop and Functional Exercise – 2029

Projects:

Concrete Repairs- Delayed, approved by the Board to go out to bid. Construction was planned for summer 2023, however the cost came in doubled and the project is on hold until funding is available. Planning on submitting for the 2026 budget.

Sluice Gate Stress Analysis- 2024, the FERC has requested a detailed study of the spillway gates. This is a common industry request from FERC as they continuously look at safety involving dams. The inspections were completed, and the engineer has identified some items for consideration. This will need to be part of the budgeting process.

River Level Sensor

Premature failure of this sensor has caused negative impact to the operation and emergency actions. Staff are working with engineers to fix the problem. In February, a radar style sensor was installed in parallel to the existing system. This new technology seems promising to help reduce the on-going cost and better system reliability. The testing period for the new sensor is 60 days.

DTE/ITC Power Line Rebuild- ITC is planning a rebuild of the transmission line along Bridge Road. Project is planned in 2026 will likely take a couple of months to complete. We don't know how this will impact Hydro's operations.

DTE Gas Line relocation- DTE has submitted plans to relocate the gas line attached to the bridge and dam. The project has easements now through North and South Hydro Parks. Construction will commence when the dams' concrete work is under contract.

Operation Summary

2025	June	YTD	5 Year Ave.
Precipitation total (inches) ¹	3.69	14.93	35.8
Days Online	30	181	362
Net Generation MWH (estimated)	762.613	5,971.273	9,991.619
Generation MWH lost (estimated)*	159.039	168.275	423.510

After Hour Call In

Water levels	2	10	36
Mechanical/Electrical	0	0	4
Other	0	0	2
Totals	2	10	42

Recent History	2020	2021	2022	2023	2024
Precipitation total (inches)	41.4	40.0	26.37	36.65	34.76
Days Online	359.7	360.0	363.5	363.4	366
Generation MWH (estimated)	10,722.7	10,524.5	9,185.151	9,336.397	10,189.347
Generation MWH lost (estimated)*	570.2	423.2	362.5	216.076	545.578

After Hour Call In

Water levels	69	33	36	22	20
Mechanical/Electrical	4	9	0	3	6
Other	2	0	4	2	1
Totals	75	42	40	27	27

¹ Preliminary totals from NOAA for Detroit

*losses related to scheduled & unscheduled maintenance and water quality discharges.

Water Quality Summary:

MOU with City of Ann Arbor

The Parties share a common interest in eliminating and preventing nuisance blue green algae blooms in Ford and Belleville Lakes, and they acknowledge that information about water quality and conditions in the lakes is important to advancing their common interest. THEREFORE, the Parties enter into this Memorandum of Understanding to memorialize their understanding as to their efforts to cooperate and

work together to monitor, collect, and share water quality information regarding Ford and Belleville Lakes.

Work Plan

- for 2025, continue collecting data, follow updated discharge plan

Current Activities

- WQ equipment was deployed in May, some earlier issues have been resolved.

Sluice Gate Usage Summary

Releasing water from the sluice gates is primary done to maintain lake level when flow exceeds the powerhouse. At certain times, we can use the gates to help keep the lake mixed to maintain oxygen levels (effectiveness depends on several factors) at the bottom of the lake.

The water quality monitoring begins on June 1st and will end on September 30th; operators monitor the water quality conditions and take readings as outlined in the WQ Plan. The dam releases water from the bottom gates to maintain run of river and/or help with the water quality in Ford Lake. The Federal License requires us to pass water with a minimum of 5mg/l of dissolved oxygen all the time. Therefore, spilling from the bottom gates in the summer to improve the lake is not always possible.

Current Year 2025	Current Year Days Spilled	Current Year Lost KWH *	Current Year Lost KW \$ *	Prior Yr. Lost KW \$ *
January	0	0	0	0
February	0	0	0	0
March	9.1	0	0	0
April	9.6	0	0	0
May	10.8	0	0	\$ 1,628
June	16.5	159,039	\$6,856	\$ 9,386
July				\$ 1,742
August				\$ 1,973
September				\$ 618
October				0
November				0
December				0
Totals	46.0	159,039	\$6,856	\$ 15,347

*Estimated losses from diverting water away from generators for the **purpose of improving WQ.**

Sargent Charles Dam

This dam continues to get routine safety inspections and appropriate maintenance.

In October 2023, the dam was inspected by the state. In their report the dam is in satisfactory condition, the report listed some maintenance recommendations to help maintain a safe dam. Staff are working on the follow-up actions.

FIRE DEPARTMENT HONORS



APPROVAL OF AGENDA



Charter Township of Ypsilanti

7200 S. HURON RIVER DRIVE • YPSILANTI, MI 48197

SUPERVISOR BRENDA STUMBO • CLERK DEBBIE SWANSON • TREASURER STAN ELDRIDGE
TRUSTEES: • KAREN LOVEJOY ROE • JOHN P. NEWMAN II • GLORIA PETERSON • LARESHA THORNTON

REGULAR MEETING AGENDA

TUESDAY, JULY 15, 2025

6:00 P.M.

Board Meetings are audio recorded and posted on the website.

DETERMINATION OF QUORUM

1. CALL TO ORDER

2. PLEDGE OF ALLEGIANCE AND INVOCATION

3. FIRE DEPARTMENT HONORS

4. APPROVAL OF AGENDA

5. CONSENT AGENDA

A. MINUTES OF JUNE 17, 2025 REGULAR MEETING

B. STATEMENTS AND CHECKS

1. STATEMENTS AND CHECKS FOR JULY 1, 2025, IN THE AMOUNT OF \$858,216.29
2. STATEMENTS AND CHECKS FOR JULY 15, 2025, IN THE AMOUNT OF \$1,605,159.57
3. CLARITY HEALTHCARE DEDUCTIBLE ACH FOR JUNE 2025, IN THE AMOUNT OF \$58,805.05
4. CLARITY HEALTHCARE ADMIN FEE FOR JUNE 2025, IN THE AMOUNT OF \$1,710.28

C. TREASURER'S REPORT

5. ATTORNEY REPORT

A. GENERAL LEGAL UPDATE

NEW BUSINESS

1. APPROVE THE CONTRACT WITH BS&A SOFTWARE, LLC TO UPGRADE OUR CURRENT BS&A.NET SOFTWARE TO CLOUD-BASED SOFTWARE, PENDING ATTORNEY'S REVIEW AND RECOMMENDATION OF CONTRACT
2. 1ST READING OF ORDINANCE 2025-511, AN ORDINANCE TO AMEND CHAPTER 62, ARTICLE IV, SECTION 62-76(a) OF THE CODE OF ORDINANCE, CHARTER TOWNSHIP OF YPSILANTI, TO ADJUST WATER SERVICE RATES
3. 1ST READING OF ORDINANCE 2025-511, AN ORDINANCE TO AMEND CHAPTER 62, ARTICLE IV, SECTION 62-77 OF THE CODE OF ORDINANCE, CHARTER TOWNSHIP OF YPSILANTI, TO ADJUST SEWER SERVICE RATES
4. AUTHORIZE TO ENTER INTO NEGOTIATIONS TO SELL TOWNSHIP OWNED PROPERTY LOCATED AT 2162 ECORSE ROAD
5. AUTHORIZE THE PURCHASE OF PROPERTIES FROM THE 2025 WASHTENAW COUNTY TAX SALE, LOCATED AT 2117 NANCY STREET, 1555, 1655, 1540, AND 1520 WATSON STREET
6. WAIVE THE FINANCIAL POLICY AND APPROVE CRIBLEY DRILLING FOR THE NEW ELECTRICAL INSTALLATION FOR WELL #8 AT THE GREEN OAKS GOLF COURSE IN THE AMOUNT OF \$20,878.000, BUDGETED IN LINE ITEM #584-784-931.022, CONTINGENT ON BUDGET AMENDMENT
7. APPROVE ANNUAL LICENSES TO JUNKYARD BUSINESSES
8. APPROVE LITIGATION TO ABATE PUBLIC NUISANCE AND REQUEST PADLOCK AT 611 WOODLAWN AVE
9. APPROVE AND FILL THE VACANT HUMAN RESOURCE DIRECTOR POSITION, ALONG WITH THE ATTACHED JOB DESCRIPTION AND SALARY RANGE. THE POSTING SHALL LIST A SALARY RANGE OF \$95,000 TO \$105,000, BUDGETED IN LINE ITEM #101-270-705.000

10. AUTHORIZE TO PROCEED IN PARTNERSHIP WITH LOMBARDO HOMES TO MAKE IMPROVEMENTS TO THE MERRITT ROAD AND TUTTLE HILL ROAD INTERSECTION FOR SIGNALIZATION AND PEDESTRIAN CROSSING

11. BUDGET AMENDMENT #9

AUTHORIZATIONS AND BIDS

1. ACCEPT THE BID FROM CSI EMERGENCY APPARATUS TO PURCHASE ONE AERIAL FIRE APPARATUS IN THE AMOUNT OF \$1,499,428.00, BUDGETED IN LINE ITEM #217-907-979.000

OTHER BUSINESS

PUBLIC COMMENTS

- **THREE MINUTES PER PERSON**
- **ALL COMMENTS MUST BE ADDRESSED TO THE CHAIR**
- **PUBLIC COMMENTS ARE ALSO WELCOMED AS THE BOARD ADDRESSES EACH AGENDA ITEM**

BOARD MEMBER COMMENTS

ADJOURNMENT

**** Packet was revised on 7/24/2025 to include the spec sheet and contract for the Aerial Apparatus from CSI Emergency Apparatus****

CONSENT AGENDA

**CHARTER TOWNSHIP OF YPSILANTI
MINUTES OF THE JUNE 17, 2025 REGULAR BOARD MEETING**

Board Meetings are audio recorded and posted on the website

DETERMINATION OF QUORUM

Supervisor Stumbo determined a quorum was present. Trustee Lovejoy Roe arrived after the Consent Agenda and Trustee Newman arrived during the Attorney report.

Township Supervisor Brenda Stumbo called the meeting to order at 6:01 pm in the Ypsilanti Township Civic Center Board Room, 7200 S. Huron River Drive, Ypsilanti Township.

Members Present: Supervisor Brenda Stumbo, Clerk Debbie Swanson, and Treasurer Stan Eldridge
Trustees: Karen Lovejoy Roe, John Newman II, Gloria Peterson, and LaResha Thornton

Members Not Present: None

Legal Counsel: Wm. Douglas Winters

Supervisor Stumbo asked the board to move Public Comments before New Business. The Board agreed.

The Pledge of Allegiance was recited followed by a moment of silent prayer.

APPROVAL OF AGENDA

A motion was made by Trustee Peterson and supported by Trustee Thornton to approve the agenda.

The motion carried unanimously.

CONSENT AGENDA

A. MINUTES OF MAY 20, 2025 REGULAR MEETING

B. STATEMENTS AND CHECKS

- 1. STATEMENTS AND CHECKS FOR JUNE 3, 2025 IN THE AMOUNT OF \$179,890.35**
- 2. STATEMENTS AND CHECKS FOR JUNE 17, 2025 IN THE AMOUNT OF \$1,538,887.82**
- 3. CLARITY HEALTHCARE DEDUCTIBLE ACH FOR MAY 2025, IN THE AMOUNT OF \$52,865.19**
- 4. CLARITY HEALTHCARE ADMIN FEE FOR MAY 2025, IN THE AMOUNT OF \$1,621.03**

C. TREASURERS REPORT

A motion was made by Trustee Peterson and supported by Trustee Thornton to approve the consent agenda.

The motion carried unanimously.

ATTORNEY REPORT

A. GENERAL LEGAL UPDATE

Legal update was provided by Attorney Winters. (refer to audio)

PUBLIC COMMENTS

There were 37 public comments. (refer to audio)

NEW BUSINESS

- 1. WAIVE THE FINANCIAL POLICY AND APPROVE CTI FOR THE 14B COURT AUDIO IN THE NEWLY CONSTRUCTED COURTHOUSE IN THE AMOUNT OF \$28,636.76, BUDGETED IN LINE ITEM #101-901-971-236, COURT RENOVATION GRANT**

A motion was made by Trustee Peterson and supported by Trustee Lovejoy Roe to waive the financial policy and approve CTI for the 14B Court audio in the newly constructed courthouse in the amount of \$28,636.76, budgeted in line item # 101-901-971-236, Court Renovation Grant. (see attached)

The motion carried unanimously.

2. WAIVE THE FINANCIAL POLICY AND APPROVE SMITHS DETECTION FOR THE 14B COURT SECURITY SYSTEM IN THE AMOUNT OF \$42,793.00, BUDGETED IN LINE ITEM #101-901-971-236, COURT RENOVATION GRANT

A motion was made by Treasurer Eldridge and supported by Trustee Thornton to waive the financial policy and approve Smiths Detection for 14B Court security system in the amount of \$24,793.00, budgeted in line item # 101-901-971-236, Court Renovation Grant. (see attached)

The motion carried unanimously.

3. APPROVE THE 2025 NATIONAL KIDNEY FOUNDATION OF MICHIGAN VENUE ACCESS AGREEMENT

A motion was made by Trustee Peterson and supported by Trustee Lovejoy Roe to approve the 2025 National Kidney Foundation of Michigan Venue Access Agreement. (see attached)

The motion carried unanimously.

4. APPROVE THE REVISED CREDIT CARD POLICY

A motion was made by Treasurer Eldridge and supported by Trustee Newman to approve the Revised Credit Card policy. (see attached)

The motion carried unanimously.

5. ACCEPT THE RESIGNATION OF AARON ROSE FROM THE LOCAL DEVELOPMENT FINANCE AUTHORITY (LDFA) BOARD, EFFECTIVE IMMEDIATELY

A motion was made by Trustee Lovejoy Roe and supported by Treasurer Eldridge to accept the resignation of Aaron Rose from the Local Development Finance Authority (LDFA) Board, effective immediately.

The motion carried unanimously.

6. APPROVE SERVER UPGRADES FOR A COST OF \$60,884.75, BUDGETED IN LINE ITEM #101-228-977.000

A motion was made by Treasurer Eldridge and supported by Trustee Lovejoy Roe to approve server upgrades for a cost of \$60,884.75, budgeted in line item #101-228-977.000.

The motion carried unanimously.

7. 1ST READING RESOLUTION 2025-21, PROPOSED ORDINANCE 2025-511, AN ORDINANCE TO AMEND THE CHARTER TOWNSHIP OF YPSILANTI CODE OF ORDINANCES, CHAPTER 66 SECTION 61, ENTITLED NOXIOUS WEEDS

Clerk Swanson read the resolution into the record.

A motion was made by Clerk Swanson and supported by Trustee Peterson to Approve 1st Reading of Resolution 2025-21, Proposed Ordinance 2025-511, an

ordinance to amend the Charter Township of Ypsilanti Code of Ordinance, Chapter 66 Section 61, Entitled Noxious Weeds. (see attached)

Thornton: Yes Eldridge: Yes Stumbo: Yes Swanson: Yes
Peterson: Yes Newman: Yes Lovejoy Roe: Yes

The motion carried unanimously.

8. APPROVE W.J. O'NEIL COMPANY TO REPLACE THE HEAT EXCHANGER IN BOILER A AT THE TOWNSHIP CIVIC CENTER IN THE AMOUNT OF \$29,377.00, BUDGETED IN LINE ITEM #101-265-931.001

A motion was made by Trustee Peterson and supported by Trustee Lovejoy Roe to approve W.J. O'Neil Company to replace the Heat exchanger in Boiler A at the Civic Center in the amount of \$29,377.00, budgeted in line item #101-265-931.001.

The motion carried unanimously.

9. APPROVE SPICER GROUP FOR DESIGN AND ENGINEERING SERVICES FOR THE 100 HALLWAY BATHROOM RENOVATION PROJECT AT THE COMMUNITY CENTER IN THE AMOUNT OF \$19,450.00, BUDGETED IN LINE ITEM #213-901-975.535, TO BE REIMBURSED BY THE WASHTENAW COUNTY COMMUNITY DEVELOPMENT BLOCK GRANT (CDBG)

A motion was made by Treasurer Eldridge and supported by Trustee Lovejoy Roe to approve Spicer Group for design and engineering services for the 100 Hallway bathroom Renovation project at the Community Center in the amount

of \$19,450.00, budgeted in line item #213-901-975.535, to be reimbursed by the Washtenaw County Community Development Block Grant (CDBG)

The motion carried unanimously.

10. WAIVE THE FINANCIAL POLICY AND ACCEPT SOURCEWELL COOPERATIVE PURCHASING FOR THE PURCHASE OF AN AERIAL FIRE TRUCK

A motion was made by Treasurer Elridge and supported by Trustee Thornton to waive the financial policy and accept Sourcewell Cooperative Purchasing for the purchase of an aerial fire truck.

The motion carried unanimously.

11. APPROVE AGREEMENT BETWEEN WASHTENAW COUNTY SHERIFF AND YPSILANTI TOWNSHIP FOR THE PURPOSE OF PROVIDING SPECIAL DEPUTY AUTHORITY TO FIRE CHIEF AND FIRE MARSHAL

A motion was made by Treasurer Eldridge and supported by Trustee Thornton to approve agreement between Washtenaw County Sheriff and Ypsilanti Township for the purpose of providing Special Deputy Authority to Fire Chief and Fire Marshal. (see attached)

12. BUDGET AMENDMENT #8

Clerk Swanson read the budget amendment into the record.

A motion was made by Clerk Swanson and supported by Treasurer Eldridge to approve budget amendment #8. (see attached)

The motion carried unanimously.

AUTHORIZATION AND BIDS

1. ACCEPT THE BID FROM ESO SOFTWARE FOR FIRE AND EMS SOFTWARE SYSTEM IN THE AMOUNT OF \$20,457.60, BUDGETED IN LINE ITEM #206-336-857.000

A motion was made by Trustee Lovejoy Roe and supported by Trustee Thornton to accept the bid from ESO Software for Fire and EMS Software System in the amount of \$20,457.60, budgeted in line item #206-366-857.000.

The motion carried unanimously.

OTHER BUSINESS

There was no other business.

PUBLIC COMMENTS

There were 2 public comments. (refer to audio)

BOARD MEMBER COMMENTS

There were 3 board member comments. (refer to audio)

ADJOURNMENT

A motion to adjourn was made by Treasurer Eldridge and supported by Trustee Thornton.

The motion carried unanimously.

The meeting was adjourned at approximately 8:52PM

Respectfully Submitted,

Brenda L. Stumbo, Supervisor
Charter Township of Ypsilanti

Debra A. Swanson, Clerk
Charter Township of Ypsilanti



PROPOSAL

14-B District Court

14-B District Court AV UPgrades

DATE

Monday, 09 June 2025

PREPARED BY

Brian Hoeft

Design Consultant

Scope of Work

Proposal Number: J25210070

Proposal Date: 6/9/2025

Prepared for: 14-B District Court

Attn: April Salley

Phone:

Email: salleya@washtenaw.org

Prepared by: Brian Hoeft

Phone: 734-320-7279

Email: Brian.Hoeft@cti.com

Bill to: 14-B District Court
7200 S HURON RIVER DR
YPSILANTI, MI
48197-7007

Ship to: 14-B District Court
7200 S HURON RIVER DR
YPSILANTI, MI
48197-7007

Scope of Work: Audio Upgrade for Courtrooms

Project Overview:

This proposal outlines the scope of work for upgrading the audio systems the two courtrooms. The base proposal focuses on adding speakers/amplifier and assisted listening to the existing system and will rely on reusing the existing audio system.

Base Proposal:

Equipment Installation for Courtroom 1:

- Install an OFE hanging ceiling microphone in each courtroom to ensure clear audio capture from all areas within the room.
- Install a OFE boundary microphone in each courtroom to provide additional audio coverage.
- Install an owner-furnished TV in the courtroom, this could be wall mounted if existing mount is available or placed on a table or worksurface.
- Install the Assisted Listening Device (details on this product are below)
- Install amplifier/DSP, rack mounted volume control, and (3) ceiling mounted speakers over the Gallery
- Installation of small tabletop equipment rack to house the AV equipment

Equipment Installation for Courtroom 2:

- Install an OFE hanging ceiling microphone in each courtroom to ensure clear audio capture from all areas within the room.
- Install a OFE boundary microphone in each courtroom to provide additional audio coverage.
- Install the Assisted Listening Device (details on this product are below)
- Install amplifier/DSP, rack mounted volume control, and (3) ceiling mounted speakers over the Gallery
- Installation of small tabletop equipment rack to house the AV equipment

System Integration:

- Connect the existing microphones to the DSP and integrate them to the existing Poly and FTR.
- Ensure the owner-furnished TV is properly connected and integrated with the existing systems for optimal functionality.

Testing and Calibration:

- Conduct thorough testing and calibration of the installed microphones and TV to ensure optimal audio and visual quality and performance.
- Adjust settings as necessary to achieve clear and balanced audio capture and display throughout the courtrooms.

Training and Support:

- Provide training sessions for courtroom staff on the operation and maintenance of the audio and visual equipment.
- Offer ongoing technical support to address any issues or concerns that may arise post-installation.

Assisted Listening Device

Overview: This option involves the installation of an assisted listening device in each courtroom to enhance accessibility for individuals with hearing impairments. The LS-100-01-GY ListenIR iDSP Standard System will be used, providing outstanding coverage, secure audio transmission, and crystal-clear sound. The system includes multiple components such as IR transmitters, receivers, ear speakers, and charging units. Additionally, a small tabletop equipment rack will be provided to house the equipment, ensuring an organized and accessible setup.

Equipment:

LS-100-01-GY ListenIR iDSP Standard System includes:

- LT-82 Stationary IR Transmitter
- LA-140 Stationary IR Radiator
- LR-4200-IR Intelligent DSP IR Receiver (4 units)
- LA-430 Intelligent Ear Phone/Neck Loop Lanyard (4 units)
- LA-401 Universal Ear Speaker (4 units)
- LA-304 Assistive Listening Notification Signage Kit
- LA-381 Intelligent 12-Unit Charging Tray

General Notes:

- All OFE or Existing equipment is expected to be in good working order and available to CTi at the time of installation.
- Our design for the upgraded system has been developed based on best common practices and assumptions regarding the functionality of the existing equipment. However, it will be necessary to verify the compatibility of the existing components to ensure seamless integration with our new design. This verification process will be conducted prior to installation to mitigate any unforeseen issues or needed changes to the design
- If a Teams, Zoom, or other soft codec software is necessary for this project it is expected to be provided by owner and ready prior to our time of installation
- Any necessary network and power will be provided by others
- All CTi projects include a full 1 year warranty, optional extended years are provided
- Labeling, documentation and training will be provided for all Audio and Video systems before this project is considered complete

Your Investment

Below is the cost of this solution based on the outlined scope of work. If you have questions about the complete solution, please let us know how we can help align this investment with additional needs or changes in scope.

Proposal Summary

Description		Price
Equipment		\$12,578.60
Implementation Services		\$15,522.16
Freight		\$536.00
Subtotal		\$28,636.76
Tax	Tax Exemption Documents to be provided upon award	
Grand Total		\$28,636.76

Recommended

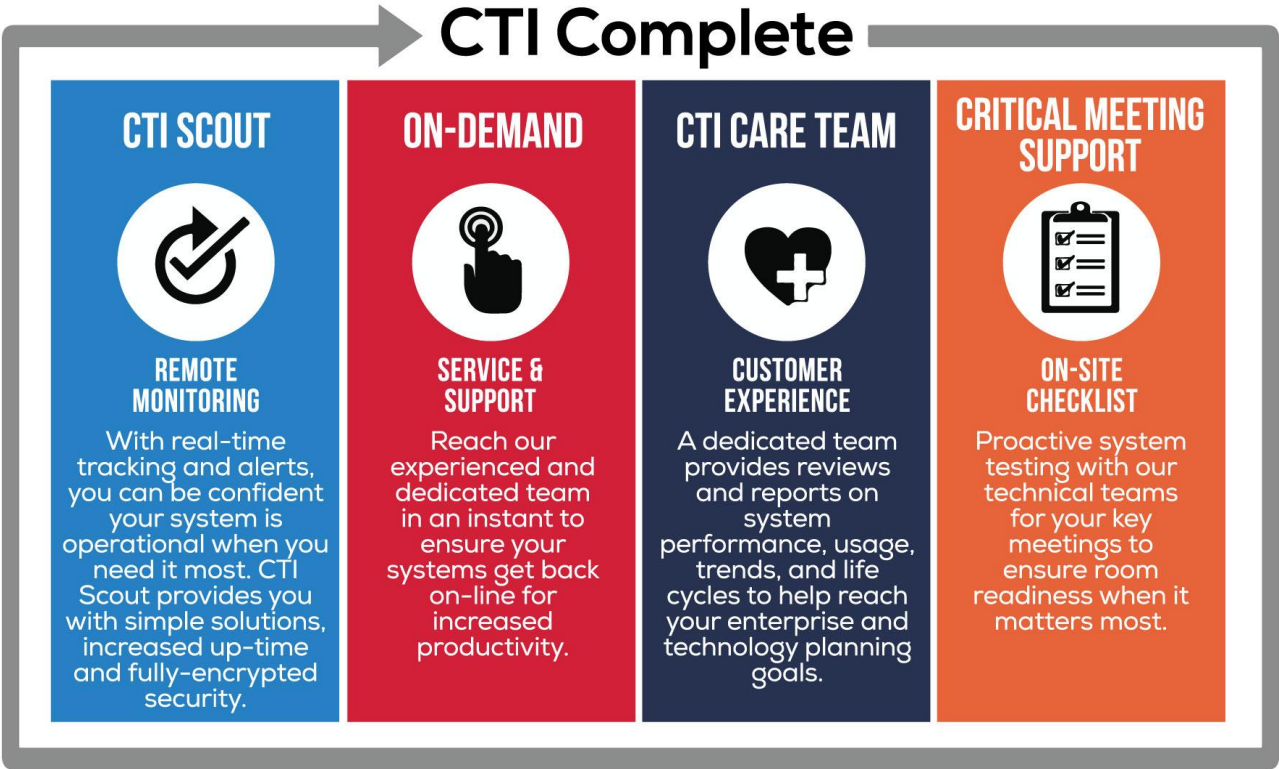
Description		Price
2 Additional Years CTI Complete Service Agreement		\$2,492.92
4 Additional Years CTI Complete Service Agreement		\$4,985.83

Down Payment Requirements

Down payment of 60% required to initiate order.

Why Us?

Our CTI Complete service is there for you 24/7 through our dedicated CTI Care customer experience team. Through on-site technical service, recommended programming upgrades, and quarterly reliability checks, your system is covered for the unexpected, as well as planned maintenance. Your teams will be trained to operate equipment with confidence. When critical meetings arise, we help ensure system performance with proactive system testing and an on-site checklist, so your systems will be ready when it matters most. Our managed services staff does more than diagnose and repair failures, they help plan for system life cycles.



Bill of Materials

Courtroom 1 - Rework Original System Rev1

Manufacturer	P/N	Description	Qty	Unit Price	Ext. Price
Display Systems Equipment: \$0.00					
	OFE	Existing TV and Wall Mount	1	\$0.00	\$0.00
Audio Systems Equipment: \$5,851.81					
	OFE	Existing Poly System	1	\$0.00	\$0.00
Listen	LS-100-01-GY	ListenIR iDSP Standard System	1	\$2,870.76	\$2,870.76
	OFE	Existing FTR Recording System	1	\$0.00	\$0.00
QSC	CORE 8 FLEX	Q-SYS Core Processor with 8 local audio I/O channels, 64x64 network I/O channels with 8x8 Software-based Dante license included, USB AV bridging, dual LAN ports, VoIP telephony, 8x8 GPIO, 8 AEC processors, Half-size 1RU. Includes Scripting/UCI functionality.	1	\$2,350.00	\$2,350.00
	OFE	Existing Audio Mixer	1	\$0.00	\$0.00
	OFE	Existing Boundry Microphone	1	\$0.00	\$0.00
Atlas	PA40G	Single Channel, 40-Watt Power Amplifier with Global Power Supply	1	\$269.64	\$269.64
Atlas	FAP43T-W	4.5" Coaxial In-Ceiling Speaker with 32-Watt 70V/100V Transformer, Ported Enclosure, and Safety First Mounting System	3	\$120.47	\$361.41
	OFE	Existing Ceiling Microphone	1	\$0.00	\$0.00
Rack Accessories and Furniture: \$437.49					
Atlas	ATPLATE-052	Attenuator Rack Mounting Plate Holds up to 6 Attenuators	1	\$30.84	\$30.84
Atlas	AT100-RM	Deluxe, Rack Mounted 70.7V 100W Attenuator, 3dB Steps	1	\$32.37	\$32.37
MIDDLE ATLANTIC	2-6M	SLIM 2 DSKTP 6SP, SLOPED	1	\$246.00	\$246.00
Atlas	SH1-10	Vented All-Purpose Rack Shelf 1RU	3	\$42.76	\$128.28

Bill of Materials

Courtroom 2 - Rework Original System Rev2

Manufacturer	P/N	Description	Qty	Unit Price	Ext. Price
Audio Systems Equipment: \$5,851.81					
	OFE	Existing Audio Mixer	1	\$0.00	\$0.00
	OFE	Existing FTR Recording System	1	\$0.00	\$0.00
Atlas	PA40G	Single Channel, 40-Watt Power Amplifier with Global Power Supply	1	\$269.64	\$269.64
Atlas	FAP43T-W	4.5" Coaxial In-Ceiling Speaker with 32-Watt 70V/100V Transformer, Ported Enclosure, and Safety First Mounting System	3	\$120.47	\$361.41
Listen	LS-100-01-GY	ListenIR iDSP Standard System	1	\$2,870.76	\$2,870.76
	OFE	Existing Boundry Microphone	1	\$0.00	\$0.00
QSC	CORE 8 FLEX	Q-SYS Core Processor with 8 local audio I/O channels, 64x64 network I/O channels with 8x8 Software-based Dante license included, USB AV bridging, dual LAN ports, VoIP telephony, 8x8 GPIO, 8 AEC processors, Half-size 1RU. Includes Scripting/UCI functionality.	1	\$2,350.00	\$2,350.00
Rack Accessories and Furniture: \$437.49					
MIDDLE ATLANTIC	2-6M	SLIM 2 DSKTP 6SP, SLOPED	1	\$246.00	\$246.00
Atlas	SH1-10	Vented All-Purpose Rack Shelf 1RU	3	\$42.76	\$128.28
Atlas	AT100-RM	Deluxe, Rack Mounted 70.7V 100W Attenuator, 3dB Steps	1	\$32.37	\$32.37
Atlas	ATPLATE-052	Attenuator Rack Mounting Plate Holds up to 6 Attenuators	1	\$30.84	\$30.84

Standard Disclaimer

CTI provides for twelve (12) months of **CTI Complete** on all system purchases. CTI warrants the system implemented is free from defects in material and workmanship, in accordance with the contract, drawings, specifications, alterations and additions thereto, for a period of twelve (12) months from the date of commencement of use, substantial completion, or date of notice of completion, whichever occurs first. This coverage does not protect against consumables, severe weather, and acts of God.

Terms

Terms are NET 30 with approved credit. For orders that exceed ten thousand dollars; 60% to initiate order, 30% upon substantial completion, and 10% upon completion, or progress billing based on purchase agreement at time of order. Payments made by credit card are subject to a 3.0% fee.

All applicable taxes are the responsibility of the purchaser and will be added to the final invoice. Any cancelled orders or returns are subject to manufacturer acceptance; shipping and restocking fees may apply. This proposal is valid for fourteen (14) days.

Taxes and Tariffs

14-B District Court is responsible for all applicable taxes, including but not limited to sales tax, value-added tax (VAT), and goods and services tax (GST), as well as any import duties, tariffs, and customs fees imposed by the destination location. These charges are not included in the product price or freight and must be paid by 14-B District Court. The Seller will provide all necessary documentation for customs clearance, and both parties agree to comply with all relevant laws and regulations regarding these charges.

Installation Description and Requirements

Provided by CTI: If installation is purchased, CTI will install all A/V components. CTI will also perform all programming, alignments, and end-user training. CTI will provide A/V project management, and provide drawings as required. This install price assumes a Monday through Friday 8:00am to 5:00pm install time. Room availability must be in consecutive 8-hour blocks. Any required changes or rushes may affect the final price.

Provided by Others

Electrical requirements are to be provided by others unless specifically included in CTI Scope of Work.

Statement

This system proposal is the property of CTI and is delivered with the sole intent of being viewed by management of 14-B District Court for evaluation purposes only. This proposal or any part of this proposal is not to be presented to, or viewed by any other party, vendor, or CTI competitor without the written consent of CTI. Any effort to do so will be considered a violation of copyright law.

Next Steps

- 1. Upon Notice to Proceed, CTI will begin executing the project plan with an internal handoff of the project to our operations team.
- 2. If you have questions about the process as we move forward, please contact me at Brian.Hoeft@cti.com or 734-320-7279.
- 3. You will be contacted by a CTI Project Manager to schedule a project kickoff meeting to review the project scope and schedule.

Total
J25210070 - \$28,636.76

Customer Signature

Printed Name

Title

Date



CTI Signature

Brian Hoeft

Printed Name

Design Consultant

Title

6/11/2025

Date

Retail Sales Agreement



Reference Number: 1342748
Date: April 29, 2025

Washtenaw County- Ypsilanti 14B Court Room - Court Room
Refresh

Prepared By: Michael Ciranna
Phone: (248) 515-3141
Email: michael.ciranna@avisystems.com

AVI Systems Inc.
48679 Alpha Drive, Suite 140, Wixom, MI 48393
Phone: (469)359-4081
Fax: (248)957-6151

COMPANY

Washtenaw, County of
PO Box 8645
Ann Arbor, MI 48107

Contact: Terry Delongchamp
Phone: (734)222-6713
Email: delongchamp@washtenaw.org
Account Number: 4106

PROJECT SITE

Washtenaw County- Ypsilanti 14B
Court Room
7200 South Huron River Drive
Ypsilanti, MI 48197

Contact: Terry Delongchamp
Phone: (734)717-9621
Email: delongchamp@washtenaw.org
Account Number: 4106

INVOICE TO

Washtenaw, County of
PO Box 8645
Ann Arbor, MI 48107

Contact: Invoice Submission - Washtenaw County
Phone: (734)222-6713
Email:
sullivank@washtenaw.org, huangs@washtenaw.org
Account Number: 4106

COMMENTS

PRODUCTS AND SERVICES SUMMARY

Equipment	\$49,115.24
Integration	\$47,977.51
PRO Support	\$7,559.00
Shipping & Handling	\$2,299.00
Tax	\$0.00
Grand Total	\$106,950.75

Unless otherwise specified. The prices quoted reflect a discount for a cash payment (i.e., check, wire transfer) made by Customer in full within the time stated for payment on each invoice. Discount only applies to new items included on the invoice, and only applies if the balance on the invoice is paid in full.

All returned equipment is subject to a restocking charge. The prices are valid for 15 days and may be locked in by signing this Retail Sales Agreement.

AVI's prices/rates provided in this quote and/or agreement do not reflect any applicable tariffs imposed by foreign or domestic governmental authorities. AVI's prices are subject to change should applicable tariffs result in any price increase to the equipment purchased under this agreement.

Overdue balances are subject to a finance charge of 1.5% per month, or interest at the highest rate permitted by applicable law. In the event AVI must pursue collection of unpaid invoices, Customer agrees to pay all of AVI's costs of collection, including its attorneys' fees.

INVOICING AND PAYMENT TERMS

Customer and AVI have agreed on the payment method of ACH. Payment must be remitted by stated method. To the extent Customer seeks to use of any payment methods other than stated, and that payment method results in an increased transaction cost to AVI, the new payment must be approved in writing, and the Customer shall be responsible for paying the increased transaction cost to AVI associated with the change in payment method. Payments shall be made 30 days from invoice date. So long as the invoice has been sent and the Customer's payment is made within the terms work will continue.

AVI uses progress billing, and invoices for equipment and services allocated to the contract on a monthly basis. Unless otherwise specified, all items quoted (goods and services) as well as applicable out of pocket expenses (permits, licenses, shipping, etc.) are invoiced in summary (including applicable sales taxes due for each category of invoiced items).

Customer is to make payments to the following "Remit to" address:
AVI Systems
PO Box 842607
Kansas City, MO 64184-2607

If Payment Method is ACH: Customer must make all payments in the form of bank wire transfers or electronic funds transfers through an automated clearinghouse with electronic remittance detail, in accordance with the payment instructions AVI Systems provides on its invoice to Customer.

A monthly summary of detailed equipment received is available upon request. Equipment received may be different than equipment billed based on agreed billing method.

TAXES AND DELIVERY

Unless stated otherwise in the Products and Services Summary above, AVI will add and include all applicable taxes, permit fees, license fees, and delivery charges to the amount of each invoice. Taxes will be calculated according to the state law(s) in which the product(s) and/or service(s) are provided. Unless Customer provides a valid tax exemption certificate for any tax exemption(s) claimed, AVI shall invoice for and collect all applicable taxes in accordance with state law(s), and Customer will be responsible for seeking a tax credit/refund from the applicable taxing authority.

AGREEMENT TO QUOTE AND DOCUMENTS CONSTITUTING YOUR CONTRACT WITH AVI

Customer hereby accepts the above quote for goods and/or services from AVI. When duly executed and returned to AVI, AVI's Credit Department will check Customer's credit and approve the terms. After approval by AVI's Credit Department and signature by AVI, this Retail Sales Agreement will, together with the AVI General Terms & Conditions (which can be found at <http://www.avisystems.com/TermsOfSale>) form a binding agreement between Customer and AVI. (This Retail Sales Agreement and the AVI General Terms & Conditions of Sale (the T&Cs) are referred to collectively as the Agreement). If not defined in this Agreement, all capitalized terms shall have the meaning given to them in the T&Cs. Should AVI's Credit Department determine at any point prior to AVI commencing work that Customer's credit is not adequate, or should it otherwise disapprove of the commercial terms, AVI reserves the right to terminate the Agreement without cause and without penalty to AVI.

AGREED AND ACCEPTED BY

	AVI Systems, Inc.
Company	Company
Signature	Signature
Printed Name	Printed Name
Date	Date

CONFIDENTIAL INFORMATION

The company listed in the "Prepared For" line has requested this confidential price quotation, and shall be deemed "Confidential Information" as that term is defined in the T&Cs. This information and document is confidential and is intended solely for the private use of the customer identified above. Customer agrees it will not disseminate copies of this quote to any third party without the prior written consent of AVI. Sharing a copy of this quote, or any portion of the Agreement with any competitor of AVI is a violation of this confidentiality provision. If you are not the intended recipient of this quote (i.e., the customer), you are not properly in possession of this document and you should immediately destroy all copies of it.

PRODUCTS AND SERVICES DETAIL

PRODUCTS:

<u>Model #</u>	<u>Mfg</u>	<u>Description</u>	<u>Qty</u>	<u>Price</u>	<u>Extended</u>
TARIFF	AVI	Vendor Tariff or Duties Fee	1	\$559.80	\$559.80
Sub-Total: OFE Equipment					\$559.80
OFE	OWNER	Owner Furnished Equipment - Laptop or Mini Tower Computer	1	\$0.00	\$0.00
OFE	OWNER	Owner Furnished Equipment - MUTO 8PRE 8-Ch Microphone Preamp & USB Audio Interface	1	\$0.00	\$0.00
OFE	OWNER	Owner Furnished Equipment - FTR Computer & Software	1	\$0.00	\$0.00
Sub-Total: OFE Equipment					\$0.00
Display Equipment					
CDE7530	VIEWSONIC	75" LED Presentation Display, 3840x2160, 450 nits, 1200:1, HDMI in x 2, USB-C x 1, HDMI out x 1, w/	1	\$1,618.75	\$1,618.75
AS3LDP7	CHIEF	TEMPO FP WALL MOUNT SYSTEM, PDU BUNDLE	1	\$882.00	\$882.00
CDE6530	VIEWSONIC	65" LED Presentation Display, 3840x2160, 450 nits, 1200:1, HDMI in x 2, USB-C x 1, HDMI out x 1, w/	3	\$1,283.75	\$3,851.25
PNRUB	CHIEF	LFP FOUR ARM DUAL UNIVERSAL	3	\$780.00	\$2,340.00
CSMP9X12	CHIEF	PROX,MOUNT PLATE,9X12	3	\$42.75	\$128.25
VX2467U	VIEWSONIC	24" 1080p IPS Monitor with 65W USB C and HDMI.	1	\$165.00	\$165.00
Sub-Total: Display Equipment					\$8,985.25
Video Conferencing Equipment					
9W1A6AA#AC3	HP POLY	Poly E60 SCMR No localization	1	\$1,807.36	\$1,807.36
9W1A8AA#AC3	HP POLY	Poly E60 CeilingMount No localization	1	\$202.94	\$202.94
A01KCAA#AC3	HP POLY	Poly G62 VCS wMNT No localization	1	\$1,934.86	\$1,934.86
875K5AA	HP POLY	Poly TC10 TC BLK	2	\$1,189.76	\$2,379.52
Sub-Total: Video Conferencing Equipment					\$6,324.68
Video / Audio Distribution Equipment					
DM-NVX-E30	CRESTRON	DM NVX 4K60 4:4:4 HDR Network AV Encoder	2	\$893.75	\$1,787.50
DM-NVX-D30	CRESTRON	DM NVX 4K60 4:4:4 HDR Network AV Decoder	6	\$893.75	\$5,362.50
I/O USB BRIDGE	QSC	Q-SYS PoE bridging endpoint for AV-to-USB Bridging. Delivers driverless USB 2.0 connection. Includes	1	\$1,732.50	\$1,732.50
Sub-Total: Video / Audio Distribution Equipment					\$8,882.50
Audio Equipment					
C33ESRRF	CLOCKAUDI O	Cardioid condenser gooseneck microphone, Sonic range, 15.2", Semi Rigid shaft, XLR termination with	5	\$297.75	\$1,488.75
S133RF	CLOCKAUDI O	Table stand with membrane switch fitted with 3 Pin Fem XLR input and 3 pin Male XLR output.	4	\$255.75	\$1,023.00

SM70	CLOCKAUDIO	Shock mount, surface fitting	1	\$36.75	\$36.75
SLXD24/SM58-G58	SHURE	Wireless Vocal System with SM58	1	\$587.81	\$587.81
MXA902W-S	SHURE	902 CEILING ARRAY, WHT, SQR, 24IN, LSPKR	1	\$3,182.50	\$3,182.50
CORE 110F-V2	QSC	Unified Core with 24 local audio I/O channels, 128x128 total network I/O channels with 8x8 Software-	1	\$3,555.00	\$3,555.00
SPA-QF 60X4	QSC	4-ch, 60W/ch Q-SYS network audio Amplifier, Lo-Z, FlexIO, with Mic/line Input, 100-240v	3	\$1,406.25	\$4,218.75
SAROS IC6T-W-T-EACH+	CRESTRON	Saros 6.5 in. 2-Way In-Ceiling Speaker, White Textured, Single (must be ordered in multiples of 2)	8	\$158.75	\$1,270.00
Sub-Total: Audio Equipment					\$15,362.56
Assisted Listening Equipment					
LS-90-01-D	LISTEN	ListenIR iDSP Level I System (Dante)	1	\$1,565.25	\$1,565.25
LPT-A117	LISTEN	Remote Power Supply Kit	1	\$24.75	\$24.75
Sub-Total: Assisted Listening Equipment					\$1,590.00
Control & Network Equipment					
GSM4230P-CP4N	NETGEAR	M4250 26G4F POE PLUS MNGD SW	1	\$1,167.48	\$1,167.48
	CRESTRON	4-Series Control System	1	\$1,925.00	\$1,925.00
TS-770-B-S	CRESTRON	7 in. Tabletop Touch Screen, Black Smooth	2	\$1,376.25	\$2,752.50
Sub-Total: Control & Network Equipment					\$5,844.98
Equipment Rack & Related Items					
CFR-14-18	MIDDLE ATLANTI	14SP,CABINET FRAME RK,18D	1	\$347.37	\$347.37
5-RS18	MIDDLE ATLANTI	18"BOTTOM RUNNER SET	1	\$39.78	\$39.78
PDX-920R	MIDDLE ATLANTI	20A 9 OUT MULTI-STAGE SURGE W/CTRL	1	\$280.82	\$280.82
Sub-Total: Equipment Rack & Related Items					\$667.97
Room Scheduling Equipment					
TSS-770-B-S-LB KIT	CRESTRON	7 in. Room Scheduling Touch Screen, Black Smooth, includes one TSW-770-LB-B-S light bar	1	\$897.50	\$897.50
Sub-Total: Room Scheduling Equipment					\$897.50
Integration					
Preinstall (Meetings, Engineering & Drawings)					\$9,452.25
Project Management					\$5,683.20
Programming					\$5,688.00
Cable Placement					\$3,295.44
In Shop Fabrication					\$1,492.80
On Site Integration					\$12,400.98
Testing, Acceptance & Training					\$5,200.86
Integration Cables & Connectors					\$4,763.98
Sub-Total: Integration					\$47,977.51

Total:

\$97,092.75

PRO SUPPORT:

<u>Model #</u>	<u>Mfg</u>	<u>Description</u>	<u>Qty</u>	<u>Price</u>	<u>Extended</u>
P1S16991	AVI SYSTEMS	Poly E60 SCMR - One Year AVI UC Support Standard (8-5 M-F)	1	\$162.00	\$162.00
P1S16808	AVI SYSTEMS	G62 VCS wMNT - One Year AVI UC Support Standard (8-5 M-F)	1	\$270.00	\$270.00
P1S11010	AVI SYSTEMS	Poly TC10 - One Year AVI UC Support Standard (8-5 M-F)	2	\$165.00	\$330.00
AVISSA1YR	AVI SYSTEMS	1 Year System Support Agreement	1	\$6,797.00	\$6,797.00

Refer to Page 1 for the Grand Total that includes Taxes, and Shipping & Handling.

INTEGRATION SERVICES

INTEGRATION SCOPE OF WORK

A. SUMMARY: The Ypsilanti Township 14-B District Court is in the process of renovating their court rooms. As part of this renovation, they are interested in upgrading the AV system in Court Room 1. This would include a new video conferencing system, flat panel displays, microphones, in-room speakers, and a new AV control system. *Note, the current FTR Court Recording System will remain part of this new AV system.*

Note the Zoom Room License shall be supplied by the Ypsilanti Township 14-B District Court and is not included in the proposal.

FORTÉ shall complete the following:

- Complete the AV system design and provide Submittal, Integration, and As-Built drawing packages.
- Complete the AV control system programming.
- Install the hardware purchased.
- Commission and test the installed system.
- Provide system orientation training.

B. SYSTEM DESCRIPTION:

Court Room # 1

- Functionality Description:
- Displays:
 - o (1) ViewSonic 75-Inch Flat Panel Display wall mounted on the wall opposite the Jury Booth.
 - o (1) ViewSonic 24-Inch Desktop Monitor installed at the Judge's station.
 - o (1) ViewSonic 65-Inch Flat Panel Display wall mounted on the audience left side wall.
 - o (1) ViewSonic 65-Inch Flat Panel Display wall mounted on the audience right side wall.
 - o (1) ViewSonic 65-Inch Flat Panel Display wall mounted in the Lobby.
- Source Devices:
 - o Poly Zoom Room compute device
 - o (1) HDMI Input panel installed at the lectern for connection of an OFE carry-in laptop computer.
- Audio:
 - o (1) Clock Audio Desktop gooseneck microphone at the Judge's bench.
 - o (1) Clock Audio Gooseneck microphone installed on the lectern.
 - o (1) Clock Audio Desktop gooseneck microphone at the witness stand.
 - o (1) Clock Audio Desktop gooseneck microphone at the Defendant's table.
 - o (1) Clock Audio Desktop gooseneck microphone at the Plaintiff's table.
 - o (1) Shure Wireless handheld microphone for use as needed.
 - o (1) Shure Ceiling mounted microphone array system.
 - o Poly Zoom Room compute device.
 - o Crestron In-ceiling speakers configured in (5) zones allowing for independent control. Zones are as follows:
 - Zone-1: Judge's bench / Clerk desk
 - Zone-2: Jury Box
 - Zone-3: Center of Court Room
 - Zone-4: Audience Seating Area
 - Zone-5: Lobby
 - o OFE FTR Recording System.

Note, the wired and wireless microphones shall be used for voice amplification within the Court Room and for sending audio to the Zoom remote participants. The ceiling microphone array shall only be used for sending audio to the Zoom remote participants and or the FTR recording system only.

- Assisted Listening
 - o (1) Listen IR iDSP Level 1 System consisting of:
 - ListenIR Transmitter/Radiator Combo
 - (2) Intelligent DSP IR Receiver
 - (2) Intelligent Ear Phone/Neck Loop Lanyard
 - (2) Universal Ear Speaker
 - (1) 4-Port USB Charger
- Conferencing:
 - o Poly Zoom Room System consisting of:
 - Poly Studio E60 PTZ Camera mounted above the 75-inch flat panel display.
 - Poly G62 Android based Compute Device mounted behind the display.
 - (1) Poly Touch Controller running the Zoom Room software and located at the Judge's bench.

Zoom Room License shall be supplied by the Ypsilanti Township 14-B District Court and is not included in the proposal.

- Switching:
 - o Crestron DM-NVX AV-over-IP platform for distributing, routing, and switching of video, audio, USB, and RS-232 control. This platform uses a series of encoders and decoders to distribute signals.
- Controls:
 - o Crestron Control System Processor
 - o (1) Crestron Touch Panel at the Judge's station for AV room control functions.
 - o (1) Crestron Touch Panel at the Clerk's station for AV room control functions.
 - o Room control functions can include:
 - Flat panel displays on/off.
 - Routing / switching of source video to each display.
 - Microphone level and mute on/off.
 - Speaker volume.
 - *Note Zoom Room functions to be controlled via the Poly Touch Controller. Control of the FTR recording system to be controlled from the FTR computer.*
- Equipment Location:
 - o (1) Middle Atlantic 14SP Cabinet Rack to be located under the Judge's work surface opposite the entry ramp.
- Room Scheduling:
 - o (1) Crestron TSS-770-B-S-LB Kit 7-inch Room Scheduling Touch Screen, Black Smooth, includes one TSW-770-LB-B-S Light Bar

Running the Crestron Scheduling App, the TSS-770 integrates directly with [Crestron Fusion®](#) software, Microsoft Exchange Server® software (for users of Outlook® software and Office 365® software), the Google Calendar™ calendaring app (including G Suite™ software), CollegeNET® 25Live® scheduling software, or Ad Astra® software. IBM® Notes® software is also supported through a Crestron Fusion on-premises server.
This Room Scheduling Panel to be located in the Lobby outside the main entrance to the Court Room.

Ypsilanti Township 14-B Court to provide the following:

- 14-B Court network drop behind the 75-inch display for the Poly compute device.
- 14-B Court network drop in the Lobby for the room scheduling panel; specific location TBD.
- Floor core under or near the Middle Atlantic Cabinet rack in the Judge's box.
- Floor core or cable path from the Middle Atlantic CAB rack in the Judge's box to the following locations:
 - Clerk's station
 - Witness stand.
 - Defendant's table
 - Plaintiff's table
 - Up from the AV rack into the ceiling above.
 - Jury box (if needed)
- Provide AC power at all required locations.

Ypsilanti Township 14-B Court questions:

- Is a wired microphone needed at the Jury box? One is NOT currently included in this proposal.
- Is a wired microphone needed at the Clerk's station? One is NOT currently included in this proposal.

C. EXCLUSIONS: The following work is **not included** in our Scope of Work:

- All conduits, high voltage, wiring panels, breakers, relays, boxes, receptacles, etc.
- Concrete saw cutting and/or core drilling
- Firewall, ceiling, roof, and floor penetration
- Necessary gypsum board replacement and/or repair
- Necessary ceiling tile or T-bar modifications, replacements, and/or repair
- Structural support of equipment *AVI Systems is not responsible for building-related vibrations
- Installation of the ceiling-mounted projection screen
- All millwork (moldings, trim, cutouts, etc.)
- Patching and Painting
- Permits (unless specifically provided for and identified within the contract)
- Unless otherwise stated, the pricing in this agreement does not include prevailing wage or union labor
- Unless specifically noted, lifts and scaffolding are not included

D. CONSTRUCTION CONSIDERATIONS:

In order to accomplish the outlined goals of this project, the Customer will be responsible for contracting with an outside entity to make the necessary modifications to the space as directed by AVI Systems. The costs associated with these modifications are not included in this proposal.

E. NOTICE: THIS SCOPE OF WORK IS DELIVERED ON THE BASIS OF THE FOLLOWING ASSUMPTIONS:

- The room(s) match(es) the drawings provided.
- Site preparation by the Customer and their contractors include electrical and data placement per AVI Systems specification.
- Site preparation will be verified by AVI Systems project manager or representative before the scheduling of the installation. All work areas should be clean and dust free prior to the beginning of the on-site integration of electronic equipment.
- Customer communication of readiness will be considered accurate and executable by AVI Systems project manager.
- In the event of any arrival to the site that AVI Systems is not able to execute work efficiently and definably progress, the Customer will be charged a fee to reimburse AVI Systems for all lost time and inefficiencies. At this time, the Customer will be presented with a Contract Change Order and will/may halt work until acceptance by the Customer and rescheduling of the integration effort is agreed upon.
- Rescheduling and redeployment of AVI Systems technicians due to unacceptable site preparation may cause scheduling delays of up to 10 business days.
- There is ready access to the building/facility and the room(s) for equipment and materials.
- There is secure storage for equipment during a multi-day integration.
- If Customer furnished equipment and existing cabling are to be used, AVI Systems assumes that these items are in good working condition at this time and will integrate into the designed solution. Any repair, replacement, and/or configuration of these items that may be necessary will be made at an additional cost.
- All Network configurations, including IP addresses, are to be provided, operational and functional before AVI Systems integration begins. AVI Systems will not be responsible for testing the LAN connections.
- Cable or Satellite drops must be in place with converter boxes operational before the completion of integration. Any delay resulting in extra work caused by the late arrival of these items will result in a change order for time and materials.
- Document review/feedback on drawings/correspondence will be completed by the Customer within two business days (unless otherwise noted).
- The documented Change Control process will be used to the maximum extent possible – the Customer will have an assigned person with the authority to communicate/approve project Field Directed Change Orders and Contract Change Orders (see Appendix).
- In developing a comprehensive proposal for equipment and integration services, AVI Systems' Sales Representatives and Engineering teams must make some assumptions regarding the physical construction of your facility, the availability of technical infrastructure, and site conditions for installation. If any of the conditions we have indicated in the site survey form are incorrect or have changed for your project or project site, please let your Sales representative know as soon as possible.

Conditions of the site found during the integration effort, which are different from those documented, may affect the price of the system solution, integration, or services. To ensure that you have an accurate proposal based on your facility and specific to the conditions of your project, please review all project documentation carefully.

F. INTEGRATION PROJECT MANAGEMENT PROCESSES

AVI Systems will follow a foundational project management process which may include the following actions/deliverables (based on the size/complexity/duration of the integration project):

- Site Survey – performed prior to Retail Sales Agreement and attached
- Project Welcome Notice – emailed upon receipt of Purchase Order
- Project Kick-Off meeting with Customer Representative(s) – either by phone or in-person
- Project Status reviews – informal or formal – either by phone or in person (based on the size/complexity/duration of the project)
- Project Change Control – comprised of Field Directed Change Order and/or Contract Change Order submittals (see Appendix)
- Notice of Substantial Completion (see Appendix) – at Customer walk-through – prior to Service Transition

G. KNOWLEDGE TRANSFER (TRAINING)

This is geared specifically towards the end-user / operator. The purpose of this knowledge transfer is to provide operators with the necessary knowledge to confidently and comfortably operate all aspects of the integrated system. Areas covered include the following:

- Equipment and system overview
- Equipment operation and function
- Equipment start-up, stop and shut down
- Use/operation of patch panels, when and where to be used
- Whom to call when help is required

H. AVI SYSTEMS INTEGRATION SERVICES RESPONSIBILITIES

AVI Systems will provide services/work for the project as described above in the Scope of Work or per the attached separate Scope of Work document detailing the scope of work to be performed.

- Provide equipment, materials, and service items per the contract products and services detail.
- Provide systems equipment integration and supervisory responsibility for the equipment integration.
- Provide systems configuration, checkout, and testing.
- Provide project timeline schedules.
- Provide the necessary information, as requested, to the owner or other parties involved with this project to ensure that proper AC electrical power and cableways and/or conduits are provided to properly integrate the equipment within the facilities.
- Provide manufacturer-supplied equipment documentation.
- Provide final documentation and “as built” system drawings (CAD) - if purchased.
- Provide system training following integration to the designated project leader or team.

I. CUSTOMER INTEGRATION SERVICES RESPONSIBILITIES

- Provide for the construction or modification of the facilities for soundproofing, lighting, electrical, HVAC, structural support of equipment, and decorating as appropriate. Includes installation of any ceiling-mounted projection screen.
- Provide for the ordering, provisioning, installation, wiring, and verification of any Data Network (LAN, WAN, T1, ISDN, etc.) and Telephone Line (Analog or Digital) equipment and services prior to on-site integration.
- Provide all necessary cableways and/or conduits required to facilitate AV systems wiring.
- Provide all necessary conduits, wiring, and devices for technical power to the AV systems equipment.
- Provide reasonable access of AVI Systems personnel to the facilities during periods of integration, testing, and training, including off hours and weekends.
- Provide a secure area to house all integration materials and equipment.
- Provide a project leader who will be available for consultation and meetings.
- Provide timely review and approval of all documentation (Technical Reports, Drawings, Contracts, etc.).

ENGINEERING SERVICES

ENGINEERING SCOPE OF WORK

[copy SOW template from Integration above]

ENGINEERING SERVICES TO BE PROVIDED

AVI Systems will work with the Customer and any related design professionals selected (architects, engineers, etc.) to provide initial and ongoing audiovisual systems design and engineering support for this project.

AVI Systems strongly encourages the fostering of a truly open, cooperative “design team” approach, with team members bringing unique, valuable insight from their special perspective to the team.

The goal of these services is as follows:

- Understand clearly the current and future AV needs of the Customer.
- Provide accurate construction documents for the implementation of the AV-related infrastructure.
- Provide an overall AV plan that will allow for the procurement of appropriate AV equipment and installation, complete with system diagrams, ensuring correct integration of the equipment.
- Compile the data gathered during the engineering process into an Integration Agreement for a turnkey installation of all AV systems, with the added value of a seamless integration process.

The Design Process can be modified at any time per the direction of the Customer – otherwise, it shall follow this general outline:

AV Program Review / Verification – The AVI Systems design team will obtain from the Customer the operational specifications desired for the audio and video systems within the designated facility. Additional facility information will be required, including the building’s electrical and structural infrastructure, as well as the physical sizes of each room or space. Using compatible AutoCAD drawings, the

integration of desired AV systems within available spaces will be visualized. During this initial design phase, various equipment options, with an eye toward future expandability while maintaining current value, will be suggested.

Budget Verification – The AVI Systems design team will create a project scope compiled from the information received from the Customer. AVI Systems will generate cost estimates for the various systems as outlined above and compare these budget estimates to any initial AV budgets. This process will reaffirm the exact direction that engineering resources should target in the next phase.

Initial Design – During this phase, AVI Systems will begin applying the above-defined systems in detail to the various areas of the Customer facility. Further communications between the Customer and the other design team members, as various options are explored, will be necessary at this time. Typical deliverables from this phase would include the following drawings and/or documents.

- Preliminary AV Floor Plan and Elevations detailing locations of all AV devices
- Preliminary Projection Geometry detailing projection/screen locations with viewing angles, mounting details, etc.
- Preliminary AV Technical Power, Conduit Plans, and Riser Drawings
- Preliminary AV Video Flow
- Preliminary AV Audio Flow
- Preliminary AV Control Flow
- Preliminary AV Rack Layouts
- Preliminary Equipment Lists
- Preliminary Budget Estimates

Submittal of the above for the various rooms will be a progressive process, with most critical drawings being submitted first, allowing construction details to be available on an as-needed basis. During this process (modifications to the preliminary plans, due to a variety of considerations: architectural/aesthetic considerations, budget reviews, etc.), electronic exchange of AutoCAD drawings between all the team members will facilitate a quick exchange of updates. Specific design freeze dates will be established with all parties to facilitate timely submittals and help manage the Customer's end cost. All changes are to be reviewed and approved by all parties.

Final Systems Design – The changes made in the previous phase to the preliminary designs will be updated and regenerated as “final” construction documents. AVI Systems will typically work from background drawings from an architect under contract to the Customer, entering AV-specific data and returning these back to the architect (or other Customer retained design professional) for integration into final construction documents.

Project Specifications Document – The final audiovisual systems designs will be compiled into a written project technical specifications document with equipment lists and any pricing not already included in the quote for complete integration. This document will include the following system diagrams and documents.

- AV Floor Plan and Elevations detailing locations of AV devices
- AV Video Flow
- AV Audio Flow
- AV Control Flow
- Equipment lists as specified
- System infrastructure requirements, including cable and termination specifications
- System operational and post-operational requirements
- Project Scope of Work
- Project costs
- Project Integration Agreement

System Support

System Support is AVI Systems’ fully entitled service and support package that focuses on keeping your Unified Collaboration (UC), Digital Media (DM) and Audiovisual (AV) systems working at their peak performance. Because AVI Systems focuses on the human impact of these systems, we not only support the equipment, but also the end users of your systems.

Customer Care is the most comprehensive and flexible of all our managed service packages. We can apply our expertise and our proven support processes to support your UC, DM, and AV ecosystems. AVI Systems will deliver our offered entitlements in a tiered workflow model that provides support cases at an entry level for initiated incidents. From there, AVI Systems will follow an ITIL based model for remote remediation and on-site dispatch, as necessary. Specific resolver groups and subject matter experts (SMEs) will be alerted for any issue that cannot be easily remedied with Tier 1 or Tier 2 support staff.

SYSTEM SUPPORT AGREEMENT COVERAGE

AVI Systems will perform the services below for covered systems:

Entitlement Coverage		
Entitlement	Definition	Included
Incident Management	AVI Systems provides support to troubleshoot, remediate, and escalate all Incidents through to resolution.	Yes
Remote Support	AVI Systems provides remote Priority Support for supported systems to diagnose and address and attempt to resolve incidents.	Yes
Onsite Support	AVI Systems provides Priority Support for technician dispatch to the customer location to diagnose and address and attempt to resolve an Incident within 8 Business hours or as available and/or scheduled.	Yes
Advanced Parts Replacement	AVI Systems provides advanced replacement of failed hardware components under warranty as available.	Yes

Software Update Assistance	AVI Systems provides labor to implement updates of existing software to correct software errors and/or resolve incidents as scheduled.	Yes
System Training	AVI Systems conducts user training to cover general operation of the system and how to contact AVI Systems for support as scheduled.	Yes
System Health Checks	AVI Systems personnel perform a complete health check and diagnostic on the installed system. Includes cleaning, adjustments, functional tests, and replacement of parts to keep the system equipment in efficient operating condition.	Biannually

AVI Systems has a standard three level severity protocol and a single level for requests. Our severity levels are Critical (P1), Standard (P3), and Request (P4). Service Levels and response targets are based on Priority. Any needed information, feature enhancements, administrative inquiries are all classified as a request. The following is a severity summary and standard target percentages are listed in the table below.

Target Percentage for Standard Level Agreements (SLA)					
Priority	Details	Incident Management Response	Remote Support Response	Onsite Dispatch (if included)	Target (%)
Critical (P1)	Multiple devices are down, unable to serve data, in a state of frequent or repeating "panic" or "hang," or is in a state of degraded performance sufficient to prevent normal business operations.	Calls: 60 Seconds for calls answered Voicemail: 2 business hours Email: N/A	4 business hours	8 business hours	90
Standard (P3)	Device is experiencing and issue, anomaly, or cosmetic defect that inflicts little or no business impact.	Calls: 60 Seconds for calls answered Voicemail: 2 business hours Email: 4 business hours	8 business hours	8 business hours	90
Request (P4)	Normal requests for information regarding the installation, configuration, use and maintenance of systems under management.	Calls: 60 Seconds for calls answered Voicemail: 4 business hours Email: 4 business hours	16 business hours	Best Effort / Scheduled	90

Critical (P1): At this severity, both AVI Systems and client must commit the appropriate personnel to restore the system to a functional state or until a mutually agreeable workaround is provided.

NOTE: Email support initiation does not apply – Urgent incidents should be coordinated and requested via phone. Email initiation is logged as Standard (P3).

Standard (P3): AVI Systems will provide a viable and mutually agreeable workaround until a more permanent hardware/software upgrade exists to mitigate the incident.

Request (P4): This includes administrative inquiries. There is no impact to your production systems or business operations.

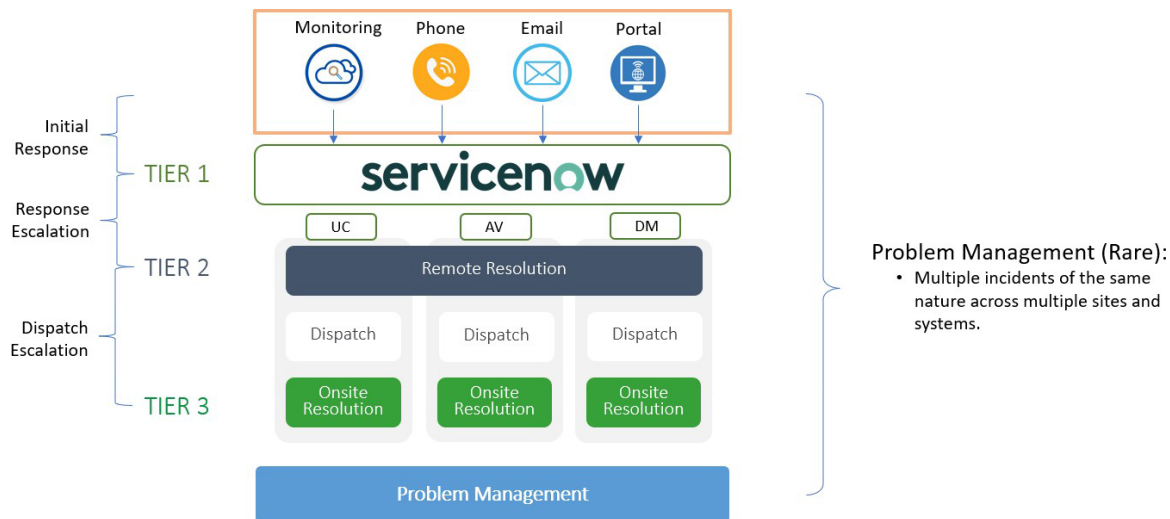
SYSTEM SUPPORT WORKFLOW

AVI Systems follows an Information Technology Infrastructure Library (ITIL) framework with our approach to technology services. Generally, our tiered workflow approach will follow this structure:

1. Incident is reported via monitoring (when purchased), phone, email, or portal (when available)
2. Incident is logged in ServiceNow and triaged (Tier 1)
3. UC / AV / DM Troubleshooting and Remote Resolution (Tier 2)
 - a. Tier 2 remediation (and SLA) begins after Tier 1 triage has been completed.

4. Dispatch Escalation and Resolution (Tier 3)

- a. Tier 3 Escalation (and SLA) begins after Tier 2 remediation has been attempted.



SERVICE COVERAGE TIME & TIER LEVELS DESCRIPTION

Coverage hours for the ProSupport department are defined as:

8 x 5	AVI Systems will provide 8 x 5 coverage across the time zone locations of the systems under coverage (North America only)
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AVI Systems ProSupport department is the initial contact point for any incoming incident. Upon identification of an issue, the ProSupport team will attempt to restore the technology service back to normal operations. Remediation activities will take place at different tiers of service, but all following a specific workflow. A general description of what happens at each tier level is as follows:

TIER 1 SERVICES:

Tier 1 services are the initial point of contact for any issue and are primarily made up of Incident Management responsibilities. Typical responsibilities for Tier 1 include:

- Taking ownership of incidents in our ServiceNow ITSM system for all issues reported or alerted on. Each incident request will have a unique reference number which is used to allow the support staff to quickly locate, add to or communicate the status of the user's issue or request.
- Assign a severity or update the severity of each incident (Critical, Standard, or Request)
- Provide electronic receipt notification for each incident.
- Provide rapid response and initial triage and technical support.
- Perform remote trouble isolation, resolution, or escalation to a Tier 2 Technician if needed.
- Ongoing status updates and case management through incident resolution.

TIER 2 SERVICES:

Tier 2 services are made up of various remote resolver groups. Escalations will take place at this level. AVI Systems will engage with a remote resolver that specializes in the incident in question. Typical responsibilities for Tier 2 include:

- Specific fault isolation down to the component level.
- Perform specific hardware configuration changes.
- Perform overall system configuration changes.
- In-depth analysis, log analysis, fault tracking and tracing.
- In-depth understanding of the core technologies utilized for corrective action.
- Promote the incident to Tier 3 escalation as needed.

TIER 3 SERVICES (available as SSA master number - if included):

Tier 3 services are made up of onsite resources that are available for dispatch. The ProSupport team will take the learnings from Tier 1 and Tier 2 teams and dispatch a site technician with the correct repair or replacement technology to fully resolve the incident. Typical responsibilities for Tier 3 include:

- Room repair and configuration changes.
- Control and audio system programming.
- Hardware swaps of on-hand critical components.

- Coordination of replacement parts.
- RMA or equipment returns to the manufacturer.
- Advanced diagnostic troubleshooting of cable paths and component level devices.
- Software and firmware updates, as well as identification of incompatible revisions.
- Acceptance testing of the resolved system.
- System health checks (preventative maintenance).
- System reimaging to correct OS/BIOS failures or to generally reconstruct a system back to functionality.

PROBLEM MANAGEMENT:

AVI Systems has a proven problem management process aimed to resolve the root causes of any Tier 3 incidents that are unresolved. Unfortunately, there are occasions where multiple issues happen across multiple platforms. These issues are escalated into an ITIL "Problem". A "problem" in this context is the unknown underlying cause of one or more incidents, and a 'known error' is a problem that is successfully diagnosed and for which either a work-around or a permanent resolution has been identified. Problems can also be identified from a single significant incident, indicative of a single error, for which the cause is unknown, but for which the impact is significant.

A known error is a condition identified by successful diagnosis of the root cause of a problem, and the subsequent development of a work-around. Problem management differs from incident management in that Problem Management aims primarily to find and resolve the root cause of a problem and thus prevent further incidents while the purpose of Incident Management is to return the service to normal level as soon as possible, with the shortest possible business impact.

CONTACTS

AVI Systems Service team can be reached by:

- National Support Phone: 855-521-0040
- **Local Branch support number should be inserted here**
- email: support@avisystems.com
- Portal: Contact your local AVI Systems representative for instructions.

SYSTEM SUPPORT DEFINITIONS

System – Defined as the items listed in the Products and Services Detail section of this Agreement or listed on an attached Equipment List with the exception of Consumables, Owner Furnished Equipment, and Obsolete Equipment.

Remote Support – Means a service whereby remote calls made to communications and terminal equipment via Customer provided IP connection to determine failures and remedies. Only available where equipment is capable and configured by AVI Systems to provide same.

Onsite Support - Service level response assumes customer location is within 60 miles of an AVI Systems Service Center. Additional travel costs may apply if the customer location is beyond 60 miles of an AVI Systems Service Center.

Consumables – Means parts such as recording media, batteries, projection lamps and bulbs, etc. Consumables are parts that are not included under this Agreement.

Obsolete Equipment – Defined as items (though possibly still in use) that are outdated with no manufacturer support or parts availability, or products with formal end of life as defined by their manufacturer. Obsolete Equipment are parts that are not included under this Agreement.

Software Update Assistance – Defined as revisions of existing software which provide maintenance to correct software errors. Assumes software is provided at no charge by the manufacturer or covered under a valid manufacturer maintenance contract. Cascading software dependencies may impact ability to issue updates. Software and features which require additional licensing are not included under this Agreement. Changes to custom templates or scripts after initial deployment are available separate from this agreement.

SYSTEM SUPPORT TERMS

Coverage Dates – Unless otherwise stated, the service coverage date will be effective as of substantial completion or System Support Agreement invoice date; whichever is applicable. Coverage will extend for the duration specified by the corresponding line item description found in the Product and Services Detail section of this Agreement. AVI Systems reserves the right to withhold services until the invoice is paid in full.

Exclusions – For situations where AVI Systems is providing service or support under this Agreement, no cost service, maintenance or repair shall not apply to the Equipment if any person other than an AVI Systems technician or other person authorized by AVI Systems, without AVI Systems prior written consent, improperly wires, integrates, repairs, modifies or adjusts the Equipment or performs any maintenance service on it during the term of this Agreement. Furthermore, any Equipment service, maintenance or repair shall not apply if AVI Systems determines, in its sole discretion, that the problems with the Equipment were caused by (a) Customer's negligence; or (b) theft, abuse, fire, flood, wind, lighting, unreasonable power line surges or brownouts, or acts of God or public enemy;

or (c) use of any equipment for other than the ordinary use for which such equipment was designed or the purpose for which such equipment was intended, or (d) operation of equipment within an unsuitable operating environment, or (e) failure to provide a suitable operating environment as prescribed by equipment manufacturer specifications, including, without limitation, with respect to electrical power, air conditioning and humidity control.

Systems Support Terms are in addition to AVI Systems' General Terms and Conditions of Sale.

UNIFIED COMMUNICATIONS TERMS

Coverage Dates – Unless otherwise stated, the service coverage start date for Unified Communications Support Services for new unified communications infrastructure equipment will be the shipped date from the manufacturer, and coverage will extend for the duration of time specified by the corresponding line-item description found in the Product and Services Detail section of this Agreement. The start date for Unified Communications Support Services purchased to cover existing equipment is established by the manufacturer, and the coverage will extend for the duration specified by the corresponding line-item description found in the Product and Services Detail section of this Agreement.

Unified Communications Terms are in addition to AVI Systems' General Terms and Conditions of Sale.

DIGITAL MEDIA TERMS

Coverage Dates – Unless otherwise stated, the service coverage start date for Digital Signage Support Services for new digital signage equipment will be the shipped date from the manufacturer, and coverage will extend for the duration of time specified by the corresponding line-item description found in the Product and Services Detail section of this Agreement. The start date for Digital Signage Support Services purchased to cover existing equipment is established by the manufacturer, and the coverage will extend for the duration specified by the corresponding line-item description found in the Product and Services Detail section of this Agreement. Digital Media Terms are in addition to AVI Systems' General Terms and Conditions of Sale.

RSS SERVICES TERMS

1. LICENSED CONTENT

In addition to any other rights under the Agreement, AVI Systems, Inc. ("AVI Systems") grants Customer, during the term of this Agreement and subject to the terms and conditions of this Agreement, a license to use syndicated media and/or data provided by AVI Systems (the "Service") on Customer's network of public digital signage displays (the "Network"). All information offered to Customer is the sole and exclusive property of AVI Systems or its content partners. The customer agrees that it will not sell or make items from the Service available to any other entity or make the Service publicly available via the world wide web.

Customer shall not use or permit the use of material from AVI Systems in any way that compromises the integrity thereof or which infringes any copyrights or other intellectual property rights, contracts, or proprietary interests or cause the material to be displayed on any other medium other than public digital displays.

2. WARRANTIES AND DISCLAIMERS

AVI Systems warrants that it is licensed to grant a license to use the content delivered by the Service as set forth herein. AVI Systems warrants that to the best of its knowledge, Customer's use of the Service in accordance with this agreement will not infringe upon any copyright or other intellectual property right of AVI Systems or any third party.

The Parties acknowledge that in normal industry practice, errors occur, and AVI Systems makes no representations and warranties as to the sequence, completeness, accuracy, and/or reliability of the Service. AVI Systems, subject to the fundamental obligation to give impartial material worthy of confidence, will make its best efforts not to contravene any laws (including, but not limited to, the law of defamation) or regulations in any country in which AVI Systems distributes the Service.

IN NO EVENT SHALL AVI SYSTEMS OR ITS CONTENT PARTNERS BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO, LOSS OF PROFITS OR INCOME, ARISING FROM ANY ACT OR FAILURE TO ACT BY AVI SYSTEMS OR ITS CONTENT PARTNERS WHETHER OR NOT IT HAD ANY KNOWLEDGE ACTUAL OR CONSTRUCTIVE, THAT SUCH DAMAGES MIGHT BE INCURRED, NOR SHALL THEY BE LIABLE FOR DAMAGES CAUSED BY ANY FAILURE OF PERFORMANCE, MISTAKES, OMISSIONS, INTERRUPTIONS, DELETIONS OF FILES, DEFECTS, DELAYS IN OPERATION OR TRANSMISSION, COMMUNICATIONS LINES FAILURE, THEFT, DESTRUCTION OR UNAUTHORIZED ACCESS TO OR USE OF MATERIAL FROM AVI Systems.

3. SURVIVAL

The rights and obligations of User, AVI Systems, and its content partners under the foregoing paragraphs will continue notwithstanding any termination of this Agreement.

4. ARCHIVE RIGHTS

All archive rights between AVI Systems and Customer terminate upon termination of this Agreement. At that time, the Customer must delete all material received from AVI Systems within ten (10) business days from all on and offline storage.

RSS Services Terms are in addition to AVI Systems' General Terms and Conditions of Sale.

PREPAID BLOCK

PREPAID BLOCK DEFINITIONS

Preventive Maintenance – AVI Systems personnel perform the necessary cleaning, adjustments, functional tests, and replacement of parts to keep the equipment in good and efficient operating condition. Any repairs or operating instructions will be done at this time.

Remote Diagnostics – a service whereby remote calls are made to communications and terminal equipment via Customer provided analog line or IP connection to determine network and/or board-level failures and remedies. Only available where equipment is capable and configured by AVI Systems to provide same.

PREPAID BLOCK TERMS

Labor Hours

- All labor costs for services rendered will be applied against the contract amount

- Service and support outside of normal business hours (Mon – Fri / 8 am – 5 pm) will be calculated at 1.5 times the actual hours
- Technician travel time for on-site services is calculated portal-to-portal
- Any additional service hours requested beyond the contract amount will be additionally invoiced at the contract rate

Parts, Materials, and Other Expenses

- At the Customer's option, the Prepaid Block may also be applied against the cost of all parts, materials, and other expenses costs for services provided rendered; or
- Any additional parts, materials, and other expenses services costs beyond will be additionally invoiced

Coverage Dates – Unless otherwise stated, the service coverage date will be effective as of the AVI Systems Prepaid Block invoicing date. AVI Systems reserves the right to withhold services until the invoice is paid in full.

Subject to any limitation under applicable law, unused Prepaid Blocks expire 24 months after issuance.

PRODUCT SUPPORT AGREEMENT TERMS

Term – The term of the agreement is five (5) years from the date of invoice.

Coverage Dates – Unless otherwise noted, the service coverage date will be effective as of the AVI Systems' Support Agreement invoicing date.

Product Registration and Renewability – This agreement is non-renewable, and AVI Systems requires the owner to submit serial numbers of products covered to AVI Systems within 30 days of delivery. AVI Systems will make its commercially reasonable efforts to collect such information in the event of product drop shipping.

Service Obligations – AVI Systems' obligations under this Agreement are limited to providing phone support for problem diagnostics, in-shop maintenance adjustments, break-fix repairs, and part replacements required for the equipment listed above in the Products and Services Detail section, hereto (the "Covered Equipment"). Such service shall be provided during normal AVI Systems business hours, and (a) shall include only maintenance for current manufactured parts and labor required to repair the Covered Equipment which has become defective through normal wear and usage, and (b) shall provide all materials and parts, and (c) is intended to keep the Covered Equipment in good working order during the term of this Agreement, (d) normal turnaround time for Covered Equipment service shall be 10 business days, and (e) does not assure against interruptions in the operation of the Covered Equipment.

Service Exclusions – For situations where AVI Systems is providing service or support under this Agreement, no cost service, maintenance, or repair shall not apply to the Covered Equipment if any person other than an AVI Systems technician or other person authorized by AVI Systems, without AVI Systems, prior written consent, improperly wires, integrates, repairs, modifies or adjusts the Covered Equipment or performs any maintenance service on it during the term of this Agreement. Furthermore, any Covered Equipment service, maintenance, or repair shall not apply if AVI Systems determines, in its sole discretion, that the problems with the Covered Equipment were caused by (a) the Customer's negligence; or (b) theft, abuse, fire, flood, wind, lighting, unreasonable power line surges or brownouts, or acts of God or public enemy; or (c) use of any equipment for other than the ordinary use for which such equipment was designed or the purpose for which such equipment was intended, or (d) operation of equipment within an unsuitable operating environment, or (e) failure to provide a suitable operating environment as prescribed by equipment manufacturer specifications, including, without limitation, with respect to electrical power, air conditioning, and humidity control.

General – AVI Systems reserves the right to assign this Agreement to other parties in order to fulfill all warranties and obligations expressed herein.

Product Support Agreement Terms are in addition to AVI Systems' General Terms and Conditions of Sale.

Tax ID#: 22-3552823

DUNS #: 53050980

Kristin Harts
Account Executive
Smiths Detection
2202 Lakeside Blvd
Edgewood, MD 21040
Phone: 219-661-8964
Fax: 219-661-8965
Email: kharts@securmar.com

Smiths Detection Equipment Proposal

Prepared for Company Location	April Salley 14B District Court 7200 S Huron Dr Ypsilanti, MI 48197	Date	June 2, 2025
Phone	734-483-2330	Quote number	01-25-020SDX
Email Address	salleya@washtenaw.org	Delivery Location(s)	Washtenaw, MI
Payment Terms	Net 30 days	Delivery Terms	FOB Origin Freight Allowed
		Expected Delivery	24-30 weeks ARO
		Validity of Quote	60 days

QTY	DESCRIPTION	UNIT PRICE	EXTENDED PRICE
1	Smiths Detection SDX 6040 X-ray Inspection System Tunnel Dimensions: 24.4"W x 16.5"H, Overall Dims: 68.11"L x 31.37"W x 49.01"H Steel Penetration: 35-37mm, Wire Resolution: 40-41 AWG 22" LCD touchscreen monitor Operator Keyboard Software: HI-SPOT - Automatic Dense Area Detection Super Enhancement Image Storage System Optizoom HI-TRAX Image Enhancement Functions Operator Manual 12-month Standard Warranty 2-hour Operator Orientation by Field Service Technician	\$29,995.00	\$29,995.00
Software			
	Hi-TIP^{Plus} - Threat Image Projection	\$2,500.00	
	OTS Xtrain - Operator Training	\$3,500.00	
	X-ACT - highlights suspicious materials such as explosives	\$2,750.00	
	Advanced Software Package #2 - includes all of the above	\$5,500.00	
	3-year subscription for iCMORE Weapons Solution - object recognition algorithm for automatic detection of weapons, includes computer and program for X-ray unit	\$14,000.00	
Roller Tables			
1	1/2-meter Entrance/Exit Roller Table	\$867.00	\$867.00
1	1-meter Roller Table (entrance/exit)	\$1,244.00	\$1,244.00
	2-meter Roller Table (entrance/exit)	\$2,069.00	
Metal Detectors			
1	CEIA HI-PE PLUS Multi Zone Walk Through Metal Detector Panel Version, 60 zones of detection, transit counters, One Touch Set-up Feature	\$4,428.00	\$4,428.00
1	ADA Width - 820mm width	\$579.00	\$579.00
1	PD140N - Hand Held Metal Detector	\$300.00	\$300.00
Shipping, Handling & Installation			

1	Shipping (terms detailed above)	\$1,600.00	\$1,600.00
1	Installation Unit installation Radiation Leak Survey 2-hour Operator Orientation	\$1,937.00	\$1,937.00
1	Metal Detector Installation Unit installation	\$1,493.00	\$1,493.00
1	Metal Detector Shipping	\$350.00	\$350.00
X-ray Service Agreement Options per X-ray Unit			
	Extended Warranty with Preventative Maintenance On-site service coverage 8:30 am to 5:00 pm, Monday to Friday All labor, travel time and travel expenses All replacement parts required Unlimited access to 24/7 Technical Support Annual PMI and Radiation Leak Survey <i>1- year Onsite Service with PMI</i> <i>2-year Onsite Service with PMI</i> <i>3-year Onsite Service with PMI</i> <i>4-year Onsite Service with PMI</i>	\$5,235.00 \$10,785.00 \$16,668.00 \$22,903.00	
TOTAL PRICE			\$42,793.00

Smiths Detection terms and conditions are hereby incorporated in this quotation and any purchase order that may result from this quotation will be in accordance with these terms and conditions. These terms and conditions can be located at the following Smiths Detection Website: <https://www.smithsdetection.com/terms-conditions/terms-conditions-us/>

<i>Kristin Harts</i>	
Regional Sales Manager	Sales Director

Customer Signature

Customer Signature

Printed Name

Printed Name

Title

Title

Date

Date

Ypsilanti Township Recreation Department

Program: Enhance® Fitness

VENUE ACCESS AGREEMENT

This Venue Access Agreement ("Agreement") is dated as of the date below and is by and between The National Kidney Foundation of Michigan ("NKFM") and the Ypsilanti Township Recreation Department ("Owner"). Owner acknowledges and agrees that the person that signs this Agreement on Owner's behalf is Owner's authorized representative and NKFM's primary contact for purposes of this Agreement.

1. Venue. Owner hereby grants to NKFM the right to use the venue described in Exhibit A ("Venue"), during the time periods listed in Exhibit A and such other time periods as the parties may otherwise agree, for the purposes described in Exhibit A. Owner shall comply with the protocols and requirements described in Exhibit B, as may be updated from time to time by NKFM, and shall deliver the Venue and all related furniture, fixtures and equipment in good, clean, safe and secure order and condition.

2. Term and Termination. The term of this Agreement shall begin on the date listed below and shall continue for one year. Notwithstanding the foregoing, either party may terminate this Agreement at any time and for any or no reason upon ten (10) days' prior written notice to the other party. For the avoidance of doubt, the Exhibits to this Agreement shall remain in full force and effect throughout the initial term and any renewal term of this Agreement unless otherwise amended in accordance with this Agreement.

3. Equipment, Utilities, Janitorial Services and Laws. Owner shall provide NKFM use of the furniture, fixtures and equipment located in the Venue and the building in which the Venue is situated, as well as such other furniture, fixtures and equipment that are described in Exhibit B. Owner shall also provide the Venue with heat, air conditioning, cold and hot water and electricity for lighting and operation, as well as janitorial services, including trash removal. Owner shall comply with all applicable laws in connection with this Agreement and represents and warrants that it has the full right, power and authority to enter into, grant the rights and licenses and otherwise perform its obligations under this Agreement.

4. Confidentiality. All non-public, confidential or proprietary information of NKFM, its related persons or entities or its program participants is confidential and may not be disclosed or copied by Owner at any time unless authorized by NKFM in writing.

5. Financial Obligations and Liability.

(a) The parties shall comply with their financial and other obligations described in Exhibit C, which may be updated from time to time by the parties.

(b) **Hold Harmless.** Both NKFM and Owner agree to remain responsible for its own negligence, or tortuous acts, errors or omissions occurring during the terms of this Agreement, and the acts errors, or omissions of any its employees, agents or associated and affiliated entities.

Ypsilanti Township Recreation Department

Program: Enhance® Fitness

(c) IN NO EVENT WILL NKFM BE LIABLE TO OWNER, ANY OWNER'S PERSONNEL OR TO ANY THIRD PARTY FOR (i) ANY LOSS OF USE, REVENUE OR PROFIT OR LOSS OF DATA OR CONSEQUENTIAL, INCIDENTAL, DIRECT, INDIRECT, EXEMPLARY, SPECIAL OR PUNITIVE DAMAGE OR (ii) AGGREGATE DAMAGES IN EXCESS OF \$10,000, REGARDLESS OF WHETHER ANY SUCH DAMAGE ARISES OUT OF BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE OR WHETHER ANY SUCH DAMAGE WAS FORESEEABLE OR WHETHER OR NOT NKFM HAD BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

6. Insurance. At all times during the term of this Agreement and for a period of two (2) years thereafter, Owner shall maintain commercial general liability insurance coverage with limits no less than \$1,000,000 per occurrence and \$2,000,000 in the aggregate, including bodily injury and property damage, which policy will include contractual liability coverage insuring the activities of NKFM under this Agreement. Such insurance policy shall waive any right of subrogation of the insurers against NKFM, provide that such insurance be primary insurance and any similar insurance in the name of and/or for the benefit of NKFM shall be excess and non-contributory and name NKFM and its related persons and entities as additional insureds.

7. Intellectual Property. As between NKFM and Owner, NKFM is and shall be the sole and exclusive owner of (a) all right, title and interest in and to the program that it operates in connection with the Venue and any and all copyrights, trademarks, logos, patents, trade secrets, information, documents, data, know-how, methodologies and other materials and intellectual property rights (collectively, "Intellectual Property") related thereto; and (b) all Intellectual Property developed or acquired by NKFM prior to or independently of this Agreement. Nothing in this Agreement shall, by implication, estoppel or otherwise, grant Owner any rights in any of the foregoing, including, without limitation, any trademarks or logos, and Owner shall refrain from using the NKFM or program names or logos, or any other NKFM Intellectual Property, without first obtaining NKFM's prior written consent.

8. Miscellaneous. This Agreement, including its exhibits, constitutes the sole and entire agreement between the parties with respect to the subject matter contained herein and supersedes all prior and contemporaneous understandings, agreements, representations and warranties regarding such subject matter. All notices and other communications under this Agreement must be in writing and addressed to the other party at its address set forth below. If any provision of this Agreement is found by a court of competent jurisdiction to be invalid, illegal or unenforceable, such invalidity, illegality or unenforceability shall not affect any other term or provision of this Agreement or invalidate or render unenforceable such term or provision in any other jurisdiction. Upon a determination that any term or provision is invalid, illegal or unenforceable, the parties shall negotiate in good faith to modify this Agreement to effect the original intent of the parties as closely as possible. Except as set forth above, no amendment to or modification of this Agreement is effective unless it is in writing, identified as an amendment to this Agreement and signed by each party. No waiver by any party of any of the provisions of this Agreement shall be effective unless explicitly set forth in writing and signed by the party so waiving. No failure to exercise or delay in exercising any right, remedy, power or privilege arising from this Agreement shall operate or be construed as a waiver thereof, nor shall any single or partial exercise preclude any other or further exercise. This Agreement and all matters arising out of or relating to this Agreement is governed by and is to be construed in accordance with the laws of the State of Michigan, without regard to the conflict of laws provisions thereof. This Agreement may be executed in counterparts, each of which is deemed an original, but all of which together are deemed to be one and the same agreement. The provisions of this Agreement that, by their nature, survive its expiration or

Ypsilanti Township Recreation Department

Program: Enhance[®]Fitness

termination, including, without limitation, Sections 4, 5, 6 and 7, shall so survive. A signed copy of this Agreement delivered by facsimile, email or other means of electronic transmission is deemed to have the same legal effect as delivery of an original signed copy of this Agreement.

[SIGNATURE PAGE FOLLOWS]

Ypsilanti Township Recreation Department

Program: Enhance[®] Fitness

This agreement shall be effective on May 1, 2025 and terminates May 1, 2026 and is to be renewed annually based on the determination of need and duration of project period. At least two months prior to termination, the parties shall meet to review progress and success of the agreement and determine whether the agreement shall be extended for an additional length of time. It is understood by both parties that at anytime this agreement may be terminated by written notification from either party to the other.

National Kidney Foundation of Michigan

Signature: 

Name: Charlene Cole

Title: Vice President, NKFM

Address: 1169 Oak Valley Drive, Ann Arbor, MI
48108

Ypsilanti Township Recreation Department

Signature: _____

Name: Brenda Stumbo

Title: Ypsilanti Township Supervisor

Address: 2025 E. Clark Road, Ypsilanti, MI 48198

Signature: _____

Name: Debra A. Swanson

Title: Ypsilanti Township Clerk

Address: 2025 E. Clark Road, Ypsilanti, MI 48198

Ypsilanti Township Recreation Department

Program: Enhance[®]Fitness

EXHIBIT A

VENUE, TIME PERIODS, PURPOSE

Venue Description:

Ypsilanti Township Community Center
2025 E. Clark Rd., Ypsilanti, MI 48198

Phone Number:

Office 734-544-3800

Program Contact People:

Nichole Passmore, npassmore@ypsitownship.org
Joshua Kugler, jkugler@ypsitownship.org

Purpose:

Operation of the EnhanceFitness Program.

Room where the EnhanceFitness Program will take place:

Room 105

Square Footage:

1500 sq ft

Days/Times of the Week for EnhanceFitness Classes:

Monday, Tuesday, Friday at 11am-12pm

1 hour each session with 15 minutes before and after for set up/take down.

* The number of days/week that classes may be offered will be dependent on funding.

Ypsilanti Township Recreation Department

Program: Enhance® Fitness

EXHIBIT B

OWNER REQUIREMENTS

- Provide an ADA accessible facility large enough to hold an Enhance® Fitness (EF) class for participants.
- Provide a chair for every participant to use during an EF class.
- Maximum number of participants in class will be: 50
- Provide an Automated External Defibrillator (AED) Machine in a location accessible to NKFM EF Instructor.
- Have a First Aid Kit available and accessible to EF instructors.
- Owner shall keep equipment cart in secure office (includes weights, CPR mask, and lockbox).
- Owner shall lock the office where equipment kept at the end of the day.
- As agreed upon between NKFM and Owner, Owner shall be responsible for loss or theft of equipment from the cart.
- Communicate with participants.
- When deemed necessary, by NKFM staff, manage the confidential collection of waivers, attendance, participant demographic data, fitness checks and health and income information as required by NKFM.
- Follow HIPAA requirements at all times when managing the collection of confidential participant information.
- Recruit participants to attend EF classes, which is inclusive for all adults with varying fitness abilities, including those with intellectual and developmental disabilities and those in wheelchairs.
- Discuss sustainability plan with NKFM, if funding was to change.
- Actively and diligently offer and promote NKFM's services and the EF program, subject to Section 7 of the Agreement.
- Carry out its obligations under the Agreement and otherwise act with a high degree of professionalism, due diligence, care and efficiency.
- Not in any manner represent that it has any ownership in NKFM's intellectual property or that of the EF program.
- Not at any time do, or cause to be done, any act or thing in any way impairing or tending to impair, or challenge the validity of, any part of NKFM's intellectual property or that of the EF program.
- Ensure that the NKFM and EF logos appear on all Owner materials that are relevant to promoting the EF program in the community. This includes brochures, promotional materials, and resource materials, as well as recognition in all media materials such as news releases, public service announcements, online and social media, and event listings.

Ypsilanti Township Recreation Department

Program: Enhance® Fitness

EXHIBIT C

FINANCIAL OBLIGATIONS

Renewing an EnhanceFitness (EF) class at Ypsilanti Township Recreation Department:

Value \$14053

Cost to the Ypsilanti Township Recreation Department (Owner): \$0.00

Owner agrees to:

- Host **2-3** EF classes per week for 46 weeks per year.
 - No EF classes will be held during the 2-3 week period of the winter holidays. (Verify holiday dates with EF Coordinator by November 1st).
- Notify NKFM in a timely manner if classes must be cancelled or postponed for any reason.
- Notify NKFM the first of the calendar year for annual scheduled closures, such as holidays, voting, other events.
- Assist with attendance and registration of EF participants.

The National Kidney Foundation of Michigan (NKFM) agrees to:

- Schedule, pay, and provide oversight to NKFM EF Instructors as funding is available.
- Provide NKFM EF Staff Coordinator support (~1 day/month).
- Provide data management and reports.
- Obtain EF license from Sound Generations.
- Includes training/mentoring of new EF Instructors, if needed.
- Obtain liability insurance.

Charter Township of Ypsilanti

Procurement Card Program

Credit Card Policy

Revised 6-9-2025

I. Purpose:

To authorize and control the use of credit card and procurement card transactions by elected officials and employees in compliance with Public Act 266 of 1995.

II. Definitions:

- A. "Credit card" and "procurement card" means a card or device issued under a credit card arrangement by a depository financial institution.
- B. "Credit card agreement" means an unsecured extension of credit for purchasing goods or services from the credit card issuer that is accessed with a credit card.
- C. "Credit card policy" means a policy adopted by resolution of The Charter Township of Ypsilanti.
- D. "Cardholder" means approved elected officials and employees who are issued a procurement credit card.
- E. Immediately means on the day of occurrence. For purchases, that means on the same day purchased Mondays through Friday and on Monday if purchased on Saturday or Sunday.

III. Authorized Person to Execute Agreement:

- A. The Charter Township of Ypsilanti Board certifies that the currently elected Treasurer and Clerk are authorized to execute/sign a Card Agreement with the Bank.

IV. Issuance of Procurement Credit Cards:

- A. The Charter Township of Ypsilanti Board deems that it is in the best interest of the township to make certain township financial transactions by using a credit card as described in the Public Act 266 of 1995.
- B. This issuance should be limited to those individuals that demonstrate that this issuance will assist their ability to perform their assigned responsibilities and used specifically for the purchase of goods or services for the official business of the township and in accordance with the current Township Financial Policy.
- C. The issuance of credit cards to elected officers, department heads and employees will be authorized by a panel to include the Supervisor, the Clerk, the Treasurer, the Deputy Treasurer and the Accounting Director. The Supervisor will appoint the Deputy Treasurer and the Accounting Director as

- the Program Administrators who will be responsible for accounting, monitoring, and retrieval and for overseeing compliance with this policy.
- D. Credit card limits will be set by a panel to include the Supervisor, the Clerk, the Treasurer, the Deputy Treasurer and the Accounting Director. Limits will be based upon departmental necessities, not to exceed the Acts stated limits.
 - E. The Accounting Director will provide the Board with an annual list of those employees who have been issued a credit card at the first meeting in December.
 - F. All officers or employees issued a credit card will be required to sign an ***Acknowledgement of Responsibilities Agreement***. See Appendix A

V. Procurement Credit Card Use:

- A. The credit card may be used for the purchase of goods or services related to the official business of the Charter Township of Ypsilanti. It is not to be used for any personal business.
- B. The officer or employee of the issued credit card is responsible for its protection and custody and shall immediately notify the cardholder bank and the township Accounting Director or Deputy Treasurer if the card is lost or stolen.
- C. The officer or employee issued a credit card shall return the credit card immediately upon the termination of his or her employment or service in office.
- D. A purchase order is required for all credit card purchases.
- E. All purchasing procedures, rules, restrictions and other general policies can be found under the Township's Financial Policy. Strict adherence to the rules will be enforced by the Accounting Director.
- F. The officer or employee who uses a credit card shall immediately submit a copy of the vendor's credit card invoice or receipt and a copy of the purchase order to the Accounting Department.
- G. If no credit card invoice or receipt was obtained that describes the transaction, the department head shall submit to the Accounting Director a signed memo documenting why there is no invoice or receipt, the name of the vendor or entity from which goods or services were purchased, the date and the amount of the transaction, the official business that required the transaction, any printouts validating purchase and a copy of the purchase order.

VI. Monthly Statements:

- A. Officials and Employees who are issued cards shall review their monthly statements and immediately report any discrepancies to the Accounting Director. The Charter Township of Ypsilanti has 14 days from statement date to notify the Financial Institute of any disputed items.
- B. Cardholders must submit individual receipts detailing all materials or services purchased with the card.

- C. All credit card invoices must be approved before payment.
- D. The balance including interest due on the extension of credit under this arrangement shall be paid for within not more than 60 days of the initial statement date.

VII. Violations/Separation from service

- A. Any cardholder found in violation of this policy will be forced to surrender the card and will be subject to disciplinary actions, as deemed appropriate by the Township Board.
 - a. Verbal counseling
 - b. Written reprimand
 - c. Suspension
 - d. Termination
 - e. Reimbursement to the Township for unauthorized expenditures and/or civil or criminal penalties
- B. Should an employee notify the Charter Township of Ypsilanti of their intent to separate from service, they are required to surrender the card upon receipt of their notice to leave the Township's employment.

VIII. Program Administrators - Monitoring & Reporting

- A. The Deputy Treasurer and the Accounting Director will be the Program Administrators.
- B. The Program Administrators shall maintain a list of all credit cards owned by the township in the Accounting Department along with the name of the officer and employee who have been issued the credit cards, the credit limit established, the date issued, and the date returned. Each Cardholder shall sign the *Acknowledgement of Responsibilities Agreement*.
- C. The Program Administrators shall review each credit card statement as soon as possible to ensure that transactions comply with this policy. Any transactions that appear on the statements that are not documented with a credit card invoice, receipt or a signed memo shall be immediately investigated. Transactions that do not appear to comply with this policy shall be reported to the Township Board.
- D. The Township Board shall not approve payment to the entity issuing the credit cards until all transactions have been verified, including the approval of all transaction invoices if issued.

Appendix A: Credit Card Policy

Acknowledgement of Responsibilities Agreement

Participating Employee Acknowledgment of Responsibilities

By participating in the Charter Township of Ypsilanti Procurement Credit Card Program as a Cardholder, you assume responsibilities pertaining to the operation of the Procurement Credit Card Program. Please see the Credit Card Policy Guidelines for a complete list of responsibilities, which include but are not limited to the following:

- The Charter Township of Ypsilanti Procurement Card is to be used for authorized Township business expenditures only. The Procurement Card may only be used within the policies and procedures outlined for the Procurement Card program.
- The Procurement Card will be issued in the name of the employee. By accepting the Card, the employee assumes responsibility for the card and will be accountable for all charges made with the Card. The Card is not transferable and may not be used by anyone other than the Cardholder.
- The Procurement Card must be maintained with the highest level of security. If the Card is lost or stolen, or if the Cardholder suspects the card or account number has been compromised, the Cardholder agrees to immediately notify the Bank and the Program Administrator. Oral notification is to be followed up by written confirmation.
- On a monthly basis, the Program Administrator or the Accounting Director will receive a statement listing all activity associated with the Card and have 14 days from statement date to notify the Bank of any disputed items. This activity will include purchases and credits made during the reporting period. While the Cardholder will not be responsible for making payments, the Cardholder will be responsible for the verification and reconciliation of all Account activity. This will be turned into the Program Administrator in the accounting department as stated in the Credit Card Policy.
- Cardholder's Account will be subject to periodic internal control reviews and audits. By accepting the Card, the Cardholder agrees to comply with these reviews and audits. The Cardholder will be asked to produce the Card to validate its existence and produce statements and receipts to verify appropriate use.
- No subsequent invoice should be received from the vendor related to any Procurement Card purchases.
- Misuse, including, but not limited to, personal use or unauthorized use and/or fraudulent use of the Card will result in disciplinary action, up to and including termination and/or civil or criminal penalties.

By signing below, I acknowledge that I have read and agree to the terms and conditions of the document. I certify that as a participating cardholder of the Charter Township of Ypsilanti's Procurement Card Program, I understand and assume the responsibilities listed above.

Employee Signature	_____	Title	_____
Name (Print)	_____	Date	_____
Authorized by:	_____	Title	_____
Name (Print)	_____	Date	_____



WASHTENAW COUNTY OFFICE OF THE SHERIFF

EST. 1823

ALYSHIA M. DYER, SHERIFF



Memorandum of Agreement **Washtenaw County Sheriff and Ypsilanti Township** **Agency Non-Employee Letter of Agreement and Authorization**

This agreement is entered into by and between **Washtenaw County Sheriff Alyshia M. Dyer** ("Sheriff") and **Ypsilanti Township** ("Cooperating Agency") for the purpose of providing Special Deputy Sheriff authority, as provided for under MCL 51.70, to the Fire Chief and Fire Marshal of the Cooperating Agency as a part of a multi-agency fire investigation and safety response effort.

I. Scope of Authority

Pursuant to MCL 51.70, the Sheriff hereby appoints and grants Special Deputy Sheriff authority to the Fire Chief and Fire Marshal of the Cooperating Agency, specifically Fire Chief Steven Densmore and Fire Marshal Steve Wallgren, consistent with Michigan law and the provisions contained herein.

The Special Deputy Sheriff authority granted herein is incidental to and contingent upon the continued employment of the individuals identified above as licensed fire investigators of and for the Cooperating Agency.

II. Withdrawal of Authority

The provision of Special Deputy Sheriff authority is a statutory right of the Sheriff, who may withdraw any or all of the authority and power granted at her sole and exclusive discretion, at any time, with or without cause or explanation.

III. Licensing Requirements

1. For the purposes of this agreement, the Cooperating Agency represents and affirms that their employees operating under this agreement meet all the requirements to be a licensed firefighter and/or fire investigator in the State of Michigan.
2. The Cooperating Agency will immediately inform the Sheriff of any changes that occur in the licensing of any said employee.

IV. Employment Status

1. The employees of the Cooperating Agency granted Special Deputy Sheriff authority under this agreement shall not be considered employees of the Sheriff or Washtenaw County. Their appointment shall not entitle them to any benefits due to employees of the Sheriff and the County including, by way of example but not limitation, wages, medical insurance, vacation leave, sick leave or any other benefits accruing to any employee of the Sheriff and County.



WASHTENAW COUNTY OFFICE OF THE SHERIFF

EST. 1823

ALYSHIA M. DYER, SHERIFF



2. For any reason should one or both employees specified above of the Cooperating Agency who has received Special Deputy Sheriff authority under this agreement cease to be employed as such:

- a. The Sheriff shall be notified forthwith.
- b. Their appointment as a Special Deputy Sheriff is immediately null and void.

V. Hold Harmless and Indemnification

The employees of the Cooperating Agency granted Special Deputy Sheriff authority under this agreement and the Cooperating Agency shall at their/its own expense protect and defend, and indemnify and save harmless the Sheriff, the Washtenaw County Sheriff's Office, the County of Washtenaw, and any agent or representative of Washtenaw County and the Washtenaw County Board of Commissioners from any and all claims against them from both the exercise of the authority granted herein and outside the scope of authority granted herein, to the extent allowable under Michigan and federal law.

VI. Provisions

1. Exercising of Special Deputy Sheriff Authority:

- a. For the purposes of this agreement the Cooperating Agency represents and affirms that their employees operating under this agreement are:
 - i. Certified/licensed firefighters and/or fire investigators pursuant to the requirements by the State of Michigan.
 - ii. Not employees of the Washtenaw County Sheriff's Office or Washtenaw County.
 - iii. Operating under the training, best practices, and policies and procedures of the Cooperating Agency, their employer.
- b. The Cooperating Agency acknowledges and understands that the Special Deputy Sheriff authority granted herein by the Sheriff only applies when their employees are operating in an "on-duty" official capacity in their role as a fire investigator of their agency, as outlined below.
 - i. Conducting fire investigations without the protection of WCSO deputies at the location to provide for safety and security.
 - ii. Must safely transport firearms in the rear compartment of their department-assigned vehicle, stored and locked securely in a vault or other theft protection device.
 - iii. Safely store firearms in a secure/locked vault/safe at their Cooperating Agency office or home residence.



WASHTENAW COUNTY OFFICE OF THE SHERIFF

EST. 1823

ALYSHIA M. DYER, SHERIFF



- iv. Utilize the firearm only in circumstances when personal safety or safety of others is in imminent danger of death or serious bodily harm.
- v. Qualify with the firearm annually by passing a WCSO approved, sponsored, or conducted firearm safety and qualification training course.
- c. The Fire Chief and Fire Marshal of the Cooperating Agency who receive Special Deputy Sheriff authority under this agreement shall not:
 - i. Represent themselves as a Special Deputy Sheriff unless on-duty and exercising the authority granted herein.
 - ii. Carry a firearm while off-duty.
 - iii. Use their status or authority as a Special Deputy Sheriff or identification to:
 - 1. Obtain gratuities, gifts, or for any personal gain.
 - 2. Obtain privileges not otherwise available.
 - 3. Avoid the consequences of any illegal act, including traffic violations.
 - iv. Execute the authority, powers, or privileges of a Special Deputy Sheriff when off-duty.
 - v. Exercise the authority, powers, or privileges of a Special Deputy Sheriff in the course of any non-employment situation or activity.
 - vi. Carry a firearm on-duty, except when performing the specific duties of fire investigation, as specified above in VI,1(b).

VII. Duration:

- 1. This agreement is in effect through December 31st, 2028, unless otherwise ended by the Sheriff in her sole and exclusive discretion, once:
 - i. It is signed by both the Sheriff and the representatives of the Cooperating Agency.
 - ii. The licensed/certified fire employees of the Cooperating Agency are sworn in as Special Deputy Sheriffs.

Steven Densmore, Fire Chief
Ypsilanti Township

Date

Signatures continued on Page 3



WASHTENAW COUNTY OFFICE OF THE SHERIFF

EST. 1823

ALYSHIA M. DYER, SHERIFF



Steve Wallgren, Fire Marshal
Ypsilanti Township

Date

Brenda Stumbo, Township Supervisor
Ypsilanti Township

Date

Debra A. Swanson, Township Clerk
Ypsilanti Township

Date

Douglas Winters, Township Attorney
Ypsilanti Township

Date

Alyshia M. Dyer, Sheriff
Washtenaw County

Date

**CHARTER TOWNSHIP OF YPSILANTI
2025 BUDGET AMENDMENT # 8**

June 17, 2025

AMOUNTS ROUNDED UP TO THE NEAREST DOLLAR

101 - GENERAL FUND

Total Increase \$57,667.00

Request to increase the budget for Board approved TPOAM employee wage increase and health care savings.
This will be funded by an appropriation of prior year fund balance.

Revenues:	Prior Year Fund Balance	101-000-699.999	\$57,667.00
		Net Revenues	<u><u>\$57,667.00</u></u>
Expenditures:	Permanent Wages	Supervisor 101-171-706.000	\$2,069.00
	FICA	Supervisor 101-171-715.000	\$158.00
	Permanent Wages	Accounting 101-191-706.000	\$1,947.00
	FICA	Accounting 101-191-715.000	\$149.00
	Permanent Wages	Clerk 101-215-706.000	\$3,550.00
	FICA	Clerk 101-215-715.000	\$272.00
	Health Care Saving	Clerk 101-215-718.001	\$2,600.00
	Permanent Wages	Treasurer 101-253-706.000	\$3,850.00
	FICA	Treasurer 101-253-715.000	\$295.00
	Health Care Saving	Treasurer 101-253-718.001	\$2,600.00
	Permanent Wages	Assessing 101-257-706.000	\$7,508.00
	FICA	Assessing 101-257-715.000	\$574.00
	Health Care Saving	Assessing 101-257-718.001	\$1,300.00
	Permanent Wages	Building Ops 101-265-706.000	\$11,852.00
	FICA	Building Ops 101-265-715.000	\$907.00
	Health Care Saving	Building Ops 101-265-718.001	\$3,900.00
	Permanent Wages	Park & Ground 101-770-706.000	\$8,905.00
	FICA	Park & Ground 101-770-715.000	\$681.00
	Health Care Saving	Park & Ground 101-770-718.001	\$4,550.00
		Net Expenditures	<u><u>\$57,667.00</u></u>

206 - FIRE FUND

Total Increase \$2,071.00

Request to increase the budget for Board approved TPOAM employee wage increase and health care savings.
This will be funded by an appropriation of prior year fund balance.

Revenues:	Prior Year Fund Balance	206-000-699.999	\$2,071.00
		Net Revenues	<u><u>\$2,071.00</u></u>
Expenditures:	Permanent Wages	206-336-706.011	\$1,923.00
	FICA	206-336-715.000	\$148.00
		Net Expenditures	<u><u>\$2,071.00</u></u>

213 - BIKE, SIDEWALK, REC, ROADS GENERAL FUND (BSRII)

Total Increase \$19,450.00

Request to increase the budget for design and engineering services for Community Center 100 hallway bathroom improvements. This will be funded by a CBDG grant.

Revenues:	Community Dev Block Grant	213-000-522.001	\$19,450.00
		Net Revenues	<u><u>\$19,450.00</u></u>
Expenditures:	Cap Outlay - Community Ctr Improv	213-901-975.535	\$19,450.00
		Net Expenditures	<u><u>\$19,450.00</u></u>

**CHARTER TOWNSHIP OF YPSILANTI
2025 BUDGET AMENDMENT # 8**

226 - ENVIRONMENTAL SERVICES FUND	June 17, 2025	Total Increase	\$2,321.00
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Request to increase the budget for Board approved TPOAM employee wage increase and health care savings.
This will be funded by an appropriation of prior year fund balance.

Revenues:	Prior Year Fund Balance	226-000-699.999	\$2,321.00
		Net Revenues	\$2,321.00
Expenditures:	Permanent Wages	226-528-706.000	\$2,156.00
	FICA	226-528-715.000	\$165.00
	Health Care Saving	226-528-718.001	\$1,625.00
		Net Expenditures	\$2,321.00

230 - RECREATION FUND		Total Increase	\$6,713.00
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Request to increase the budget for Board approved TPOAM employee wage increase and health care savings.
This will be funded by an appropriation of prior year fund balance.

Revenues:	Prior Year Fund Balance	230-000-699.999	\$6,713.00
		Net Revenues	\$6,713.00
Expenditures:	Permanent Wages	230-754-706.00	\$6,236.00
	FICA	230-754-715.000	\$477.00
		Net Expenditures	\$6,713.00

249 - BUILDING DEPARTMENT FUND		Total Increase	\$17,134.00
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Request to increase the budget for Board approved TPOAM employee wage increase and health care savings.
This will be funded by an appropriation of prior year fund balance.

Revenues:	Prior Year Fund Balance	249-000-699.999	\$17,134.00
		Net Revenues	\$17,134.00
Expenditures:	Permanent Wages	249-371-706.000	\$3,870.00
	Building Inspectors	249-371-706.004	\$4,815.00
	Mechanical Inspectors	249-371-706.018	\$2,401.00
	FICA	249-371-715.000	\$848.00
	Health Care Savings	249-371-718.001	\$5,200.00
		Net Expenditures	\$17,134.00

266 - LAW ENFORCEMENT FUND		Total Increase	\$2,095.00
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Request to increase the budget for Board approved TPOAM employee wage increase and health care savings.
This will be funded by an appropriation of prior year fund balance.

Revenues:	Prior Year Fund Balance	266-000-699.999	\$2,095.00
		Net Revenues	\$2,095.00
Expenditures:	Permanent Wages	266-304-706.000	\$1,946.00
	FICA	266-304-715.000	\$149.00
	Health Care Savings	266-304-718.001	\$1,300.00
		Net Expenditures	\$2,095.00

**CHARTER TOWNSHIP OF YPSILANTI
2025 BUDGET AMENDMENT # 8**

597 - COMPOST FUND

June 17, 2025

Total Increase \$2,522.00

Request to increase the budget for Board approved TPOAM employee wage increase and health care savings.
This will be funded by an appropriation of prior year fund balance.

Revenues:	Prior Year Fund Balance	597-000-699.999	\$2,522.00
		Net Revenues	<u><u>\$2,522.00</u></u>
Expenditures:	Permanent Wages	597-590-706-000	\$2,343.00
	FICA	597-590-715.000	\$179.00
		Net Expenditures	<u><u>\$2,522.00</u></u>

661 - MOTOR POOL FUND

Total Increase \$518.00

Request to increase the budget for Board approved TPOAM employee wage increase and health care savings.
This will be funded by an appropriation of prior year fund balance.

Revenues:	Prior Year Fund Balance	661-000-699.999	\$518.00
		Net Revenues	<u><u>\$518.00</u></u>
Expenditures:	Permanent Wages		\$481.00
	FICA		\$37.00
	Health Care Savings		\$325.00
		Net Expenditures	<u><u>\$518.00</u></u>

Supervisor
BRENDA L. STUMBO
Clerk
DEBRA A. SWANSON
Treasurer
STAN ELDRIDGE
Trustees
KAREN LOVEJOY ROE
JOHN P. NEWMAN II
GLORIA PETERSON
LARESHA THORNTON



YPSILANTI TOWNSHIP

— WHERE YOUR FUTURE GROWS —

**Accounting
Department**

7200 S. Huron River Drive
Ypsilanti, MI 48197
Phone: (734) 544-4000 Ext 5
Fax: (734) 484-5154

STATEMENTS AND CHECKS

July 1, 2025 BOARD MEETING

ACCOUNTS PAYABLE CHECKS -	\$	809,916.94
HAND CHECKS -	\$	48,299.35
CREDIT CARDS PURCHASES -	\$	0.00
GRAND TOTAL -	\$	858,216.29

06/25/2025 11:00 AM
User: lstanfield
DB: Ypsilanti-Twp

CHECK REGISTER FOR CHARTER TOWNSHIP OF YPSILANTI
CHECK NUMBERS 200324 - 200448

Page: 1/6

A/P checks

Check Date	Check	Vendor Name	Invoice Vendor	Description	Amount
Bank AP AP					
07/01/2025	200324	A DESIGN LINE	A DESIGN LINE	ORDINANCE OFFICER CUSTOM HAT	25.94
			A DESIGN LINE	TOWNSHIP APPAREL FOR TRUSTEE N	147.34
			A DESIGN LINE	TOWNSHIP APPAREL FOR TRUSTEE T	118.68
			A DESIGN LINE	COMMUNITY PROMOTION ITEMS - RO	1,595.39
			A DESIGN LINE	LAVON PENS WITH LOGO FOR COMMU	481.37
					<hr/> 2,368.72
07/01/2025	200325	AAATA	AAATA	DISBURSEMENT FOR 2024 PILOT	2,176.45
07/01/2025	200326	AAMCO TRANSMISSIONS AND	AAMCO TRANSMISSIONS AND	#80 OIL + FILTER AND FRONT BRA	1,336.82
07/01/2025	200327	ABBAY DOOR	ABBAY DOOR	INSTALLATION OF NEW GOLF PRO S	700.00
07/01/2025	200328	ACACHI LLC	ACACHI LLC	WINDOWS 11 ENTERPRISE LICENSE	1,901.50
07/01/2025	200329	ACCUSHRED LLC	ACCUSHRED LLC	SHRED SERVICES	143.50
07/01/2025	200330	ADVANCED COMMUNICATIONS & DAT	ADVANCED COMMUNICATIONS & DAT	INTERNET UTILITY SERVICE	679.55
07/01/2025	200331	ALI METAJ	ALI METAJ	COED SOFTBALL OFFICAL PAY 6/9	80.00
07/01/2025	200332	AMAZON CAPITAL SERVICES	AMAZON CAPITAL SERVICES	SERVICE PARTS AND WARNING ITEM	392.84
			AMAZON CAPITAL SERVICES	NEW RSD CLERK BEGINNING SUPPLI	76.04
			AMAZON CAPITAL SERVICES	EMEET 3-IN-1 4K WEBCAM	89.99
			AMAZON CAPITAL SERVICES	YEALINK WH64 DECT	369.12
			AMAZON CAPITAL SERVICES	DRAIN PLUG AND HANGING PIC STR	16.39
			AMAZON CAPITAL SERVICES	WINDOW CLEANER/BUCKET/TOOLS	52.67
			AMAZON CAPITAL SERVICES	YEALINK WH64 DECT	20.00
			AMAZON CAPITAL SERVICES	OCS DEPT COFFEE ORDER - STARBU	103.14
			AMAZON CAPITAL SERVICES	MOUSEPAD FOR OCS FRONT DESK	6.99
			AMAZON CAPITAL SERVICES	ORDINANCE OFFICERS EQUIPMENT	179.63
			AMAZON CAPITAL SERVICES	PROTECTIVE COVER FOR EYE WASH	33.98
			AMAZON CAPITAL SERVICES	PPE FOR SAFETY STORE	170.77
			AMAZON CAPITAL SERVICES	50 & BEYOND ITEMS	227.37
			AMAZON CAPITAL SERVICES	50 & BEYOND ITEMS	280.14
			AMAZON CAPITAL SERVICES	SENIOR ITEMS AND SPECIAL EVENT	427.65
			AMAZON CAPITAL SERVICES	REPLACEMENT TRASH CANS FOR COM	349.20
			AMAZON CAPITAL SERVICES	CHARGING STATION FOR SPECIAL E	47.98
					<hr/> 2,843.90
07/01/2025	200333	ANN ARBOR CLEANING SUPPLY	ANN ARBOR CLEANING SUPPLY	CLEANING SUPPLIES - COMMUNITY	203.86
			ANN ARBOR CLEANING SUPPLY	CLEANING SUPPLIES - PARKS	557.53
					<hr/> 761.39
07/01/2025	200334	ANN ARBOR TOWNSHIP FIRE DEPAR	ANN ARBOR TOWNSHIP FIRE DEPAR	DRIVER'S TRAINING - DRISCOLL	50.00
07/01/2025	200335	APPLIED INNOVATION	APPLIED INNOVATION	CONTRACT INVOICE	99.55
07/01/2025	200336	AUTO VALUE YPSILANTI	AUTO VALUE YPSILANTI	FLP GARAGE COMPRESSOR - SUPPLI	13.97
			AUTO VALUE YPSILANTI	BATTERY AND CONNECTORS FOR VAN	161.17
			AUTO VALUE YPSILANTI	#99 - WIPER BLADES AND SHOP BR	13.28
			AUTO VALUE YPSILANTI	#99 - WIPER BLADES PART 2	5.39
					<hr/> 193.81
07/01/2025	200337	AZTEC HOLDCO, LLC	AZTEC HOLDCO, LLC	RELEASE PERMIT FUNDS - PERMIT	41.06
07/01/2025	200338	AZTEC HOLDCO, LLC	AZTEC HOLDCO, LLC	RELEASE PERMIT #PSE22-0006	596.25
07/01/2025	200339	B-BALL SKILLS LLC	B-BALL SKILLS LLC	PAY OUT FOR B-BALL SKILLS 6/4-	328.13
07/01/2025	200340	BACK TO NATURE LAWN CARE	BACK TO NATURE LAWN CARE	BROADLEAF WEED CONTROL	211.25
07/01/2025	200341	BARR ENGINEERING COMPANY	BARR ENGINEERING COMPANY	PROFESSIONAL SERVICES FROM 4/1	1,943.50
07/01/2025	200342	BOUND TREE MEDICAL, LLC.	BOUND TREE MEDICAL, LLC.	GLOVES FOR ALL TRUCKS/STATIONS	791.60
07/01/2025	200343	BREG ENVIRONMENTAL	BREG ENVIRONMENTAL	SPILL KITS	386.10

06/25/2025 11:00 AM
User: lstanfield
DB: Ypsilanti-Twp

CHECK REGISTER FOR CHARTER TOWNSHIP OF YPSILANTI
CHECK NUMBERS 200324 - 200448

Page: 2/6

Check Date	Check	Vendor Name	Invoice Vendor	Description	Amount
07/01/2025	200344	BRITTANY MCCULLOUGH	BRITTANY MCCULLOUGH	REFUND ROOM RENTAL DEPOSIT	100.00
07/01/2025	200345	CARLISLE/WORTMAN ASSOCIATES	CARLISLE/WORTMAN ASSOCIATES	Planning Department Support -	15,700.00
07/01/2025	200346	CHARTER TOWNSHIP OF SUPERIOR	CHARTER TOWNSHIP OF SUPERIOR	ACCT. #HURO-007200-0000-01	42.75
07/01/2025	200347	CHILDREN'S HEALING CENTER	CHILDREN'S HEALING CENTER	BD BOND REFUND: BSB23-0014, AD	250,000.00
07/01/2025	200348	CINTAS FIRST AID & SAFETY	CINTAS FIRST AID & SAFETY	FIRST AID CABINET SERVICE - 6/	43.05
			CINTAS FIRST AID & SAFETY	FIRST AID CABINET SERVICE - 6/	7.53
			CINTAS FIRST AID & SAFETY	FIRST AID CABINET SERVICE - 6/	7.53
			CINTAS FIRST AID & SAFETY	FIRST AID CABINET SERVICE - 6/	17.42
			CINTAS FIRST AID & SAFETY	FIRST AID CABINET SERVICE - 6/	37.85
			CINTAS FIRST AID & SAFETY	FIRST AID CABINET SERVICE - 6/	64.42
			CINTAS FIRST AID & SAFETY	FIRST AID CABINET SERVICE - 6/	7.53
			CINTAS FIRST AID & SAFETY	FIRST AID CABINET SERVICE - 6/	7.53
					192.86
07/01/2025	200349	CLEAR RATE COMMUNICATIONS, IN	CLEAR RATE COMMUNICATIONS, IN	ACCT. #4850408	261.90
07/01/2025	200350	COMMUNICATION SQUARE LLC	COMMUNICATION SQUARE LLC	MONTHLY OFFICE 365	4,560.00
07/01/2025	200351	CONTI	CONTI	CAMERA WORK	10,179.02
07/01/2025	200352	CRYSTAL FLASH, INC.	CRYSTAL FLASH, INC.	DIESEL FOR GOLF MAINTENANCE EQ	574.66
			CRYSTAL FLASH, INC.	COMM. CENTER: REFILL GAS FUEL	1,072.42
			CRYSTAL FLASH, INC.	FORD LAKE PARK - DIESEL FUEL F	692.76
			CRYSTAL FLASH, INC.	FORD LAKE PARK: REFILL GAS FUE	1,476.83
			CRYSTAL FLASH, INC.	FUEL FOR HQ - REGULAR	538.03
					4,354.70
07/01/2025	200353	CSI EMERGENCY APPARATUS, LLC	CSI EMERGENCY APPARATUS, LLC	REPLACE DOOR SWITCH	979.13
			CSI EMERGENCY APPARATUS, LLC	PASSENGER SIDE WINDOW/REGULATO	1,303.67
			CSI EMERGENCY APPARATUS, LLC	STEERING ASSIST CYLINDER	2,941.55
					5,224.35
07/01/2025	200354	DAMRON INVESTIGATIONS, INC	DAMRON INVESTIGATIONS, INC	BACKGROUND INVESTIGATIONS ENTR	4,500.00
07/01/2025	200355	DANCE WITH ELEGANCE	DANCE WITH ELEGANCE	SUMMER 1 SESSION & DROP-IN FEE	2,005.50
07/01/2025	200356	DANIELLE FIELHAUER	DANIELLE FIELHAUER	ZUMBA CLASS INSTRUCTION	126.00
07/01/2025	200357	DETECTION SYSTEMS AND ENGINEE	DETECTION SYSTEMS AND ENGINEE	PUBLIC CAMERA UPGRADES	2,864.00
			DETECTION SYSTEMS AND ENGINEE	PUBLIC CAMERA UPGRADES	2,864.00
			DETECTION SYSTEMS AND ENGINEE	PUBLIC CAMERA UPGRADES	3,288.00
			DETECTION SYSTEMS AND ENGINEE	RE FOCUS 2 CAMERAS IN FRONT OF	435.00
			DETECTION SYSTEMS AND ENGINEE	PUBLIC CAMERA UPGRADES	3,288.00
			DETECTION SYSTEMS AND ENGINEE	PUBLIC CAMERA UPGRADES	2,864.00
			DETECTION SYSTEMS AND ENGINEE	PUBLIC CAMERA UPGRADES	2,864.00
			DETECTION SYSTEMS AND ENGINEE	PUBLIC CAMERA UPGRADES	2,864.00
			DETECTION SYSTEMS AND ENGINEE	PUBLIC CAMERA UPGRADES	2,864.00
			DETECTION SYSTEMS AND ENGINEE	PUBLIC CAMERA UPGRADES	2,864.00
					26,794.00
07/01/2025	200358	DETROIT LEGAL NEWS	DETROIT LEGAL NEWS	DISPLAY AD NOTICE OF INTENT -	100.00
			DETROIT LEGAL NEWS	ZBA AD	50.00
					150.00
07/01/2025	200359	DIUBLE EQUIPMENT INC.	DIUBLE EQUIPMENT INC.	DECK BELTS FOR MOWER #326	191.32
			DIUBLE EQUIPMENT INC.	MOWER BELT 5V/S	101.81
					293.13
07/01/2025	200360	DREAMSEATS LLC	DREAMSEATS LLC	REPLACEMENT RECLINER FOR STATI	1,366.11

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Check Date	Check	Vendor Name	Invoice Vendor	Description	Amount
07/01/2025	200361	DTE ENERGY	DTE ENERGY	STREELIGHTS - MAY 2025	71,928.49
07/01/2025	200362	DYLAN MARSHALL	DYLAN MARSHALL	PAYMENT FOR SOFTBALL GAMES OFF	80.00
07/01/2025	200363	DYNAMIC DRAINS LLC	DYNAMIC DRAINS LLC	PERMIT REFUND - PERMIT #PP25-0	37.50
07/01/2025	200364	ELIZABETH GIORDANO	ELIZABETH GIORDANO	SPRING YOUTH SOCCER GAMES OFFI	80.00
07/01/2025	200365	FAST SIGNS	FAST SIGNS	NO PARKING SIGNS - CIVIC CENTE	104.00
07/01/2025	200366	FASTENAL	FASTENAL	CUTTING DISKS FOR HAND GRINDER	167.49
07/01/2025	200367	FIBER LINK	FIBER LINK	MISSDIG RESPONSE AND LOCATE SE	110.75
07/01/2025	200368	FONDRIEST ENVIRONMENTAL, INC	FONDRIEST ENVIRONMENTAL, INC	REPAIRS TO WATER QUALITY BOUY	2,414.88
			FONDRIEST ENVIRONMENTAL, INC	CABLE MAINTENANCE TO WATER QUA	690.00
			FONDRIEST ENVIRONMENTAL, INC	CABLE MAINTENANCE TO WATER QUA	(295.00)
					2,809.88
07/01/2025	200369	GARY TURNBULL	GARY TURNBULL	PAYMENT FOR SOFTBALL GAMES OFF	240.00
07/01/2025	200370	GENE BUTMAN FORD	GENE BUTMAN FORD	#705 Leaking Purge Valve Remov	649.36
07/01/2025	200371	GRAINGER	GRAINGER	MAINT SUPPLIES	26.83
			GRAINGER	MAINT SUPPLIES	32.98
					59.81
07/01/2025	200372	GREG MCKINNEY	GREG MCKINNEY	PAYMENT FOR SOFTBALL GAMES OFF	160.00
07/01/2025	200373	GRIFFIN PEST SOLUTIONS	GRIFFIN PEST SOLUTIONS	LEC PEST SOLUTIONS FOR 2025	68.00
07/01/2025	200374	GUARDIAN ALARM	GUARDIAN ALARM	Ford Lake Pk, Garage, Civic Ce	2,196.18
07/01/2025	200375	GUARDIAN ALARM	GUARDIAN ALARM	ALARM SERVICES FOR GREEN OAKS	182.82
			GUARDIAN ALARM	MONITORING MAINT. & SERVICES -	1,304.49
			GUARDIAN ALARM	GUARDIAN MONITORING SERVICE	2,965.95
					4,453.26
07/01/2025	200376	HARTFORD STEAM BOILER INSPECT	HARTFORD STEAM BOILER INSPECT	ROUTINE OIL TESTING ON TRANSFO	105.00
07/01/2025	200377	HERCULES MATERIALS HOLDINGS L	HERCULES MATERIALS HOLDINGS L	RELEASE PERMIT #PSE22-0005	1,219.50
07/01/2025	200378	HERCULES MATERIALS HOLDINGS L	HERCULES MATERIALS HOLDINGS L	PERMIT RELEASE PERMIT #PSE22-0	1,032.50
07/01/2025	200379	HOME DEPOT	HOME DEPOT	LAKESIDE/HERITAGE SHELTER MAIN	76.67
			HOME DEPOT	FLP GARAGE - PAINT/PRIMER AND	182.90
			HOME DEPOT	PARKS & GROUNDS - TOOLS AND SU	404.50
			HOME DEPOT	PARKS & GROUNDS - PLANT STUFF	266.05
			HOME DEPOT	PARKS & GROUNDS - PEAT MOSS	41.82
			HOME DEPOT	MAINT. TOOL - DRILL SET	235.00
			HOME DEPOT	REC COUPLINGS AND MAINT. TOOLS	135.02
					1,341.96
07/01/2025	200380	HOME DEPOT USA INC	HOME DEPOT USA INC	REFUND PERMIT - PERMIT #PB25-	82.50
07/01/2025	200381	JIBRIL NAEEM	JIBRIL NAEEM	MODERDAY MARTIAL ARTS PAYOUT	77.00
07/01/2025	200382	JUNGA'S ACE HARDWARE	JUNGA'S ACE HARDWARE	NEW WHEEL AND BLADES FOR PUSH	133.96
			JUNGA'S ACE HARDWARE	CHAINSAW AND PARTS	306.76
					440.72
07/01/2025	200383	KEVIN LAWSON	KEVIN LAWSON	SPRING 2025 YOUTH SOCCER SITE	80.00
07/01/2025	200384	KRONOS SAASHR, INC	KRONOS SAASHR, INC	UKG READY USAGE	300.00
07/01/2025	200385	LANGUAGE LINE SERVICES	LANGUAGE LINE SERVICES	INTERPRETER SERVICES	858.10
07/01/2025	200386	LARRY KENYON	LARRY KENYON	SOFTBALL GAMES OFFICIATED 6/9-	240.00
07/01/2025	200387	LOOKING GOOD LAWNS	LOOKING GOOD LAWNS	YTHM 5-25	600.00
07/01/2025	200388	LOWE'S	LOWE'S	DOUBLE SIDED TAPE FOR RESTROOM	10.43
			LOWE'S	PIPE AND FITTINGS FOR FLP GARA	104.28
			LOWE'S	MAINTENANCE SUPPLIES	31.95
			LOWE'S	PESTICIDE PRODUCTS	113.90

CHECK REGISTER FOR CHARTER TOWNSHIP OF YPSILANTI
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Check Date	Check	Vendor Name	Invoice Vendor	Description	Amount
			LOWE'S	PESTICIDE PRODUCTS	66.46
					327.02
07/01/2025	200389	MACQUEEN EMERGENCY GROUP	MACQUEEN EMERGENCY GROUP	HOODS/HELMETS	1,923.95
07/01/2025	200390	MAX-VIEW WINDOW WASHING, INC.	MAX-VIEW WINDOW WASHING, INC.	CONTRACT SERVICE - OUTDOOR WIN	1,050.00
07/01/2025	200391	MELODY WOODS	MELODY WOODS	PAINTING CLASS INSTRUCTION SPR	87.50
07/01/2025	200392	MICHIGAN LINEN SERVICE, INC.	MICHIGAN LINEN SERVICE, INC.	CIVIC CENTER LAUNDRY SERVICE F	101.10
			MICHIGAN LINEN SERVICE, INC.	MAINT. GARAGE LAUNDRY SERVICE	24.00
			MICHIGAN LINEN SERVICE, INC.	COMMUNITY CENTER LAUNDRY SERVI	49.50
			MICHIGAN LINEN SERVICE, INC.	LEC LAUNDRY SERVICE FOR 2025	67.25
			MICHIGAN LINEN SERVICE, INC.	LINEN SERVICE FOR STATION 4	85.03
			MICHIGAN LINEN SERVICE, INC.	LINEN SERVICE FOR STATION 3	86.26
			MICHIGAN LINEN SERVICE, INC.	LINEN SERVICE FOR STATION 3	190.40
			MICHIGAN LINEN SERVICE, INC.	LAUNDREY SERVICES FOR 2025 SEA	24.00
			MICHIGAN LINEN SERVICE, INC.	LINEN SERVICE FOR STATION 4	85.03
			MICHIGAN LINEN SERVICE, INC.	LINEN SERVICE FOR STATION 3	86.26
			MICHIGAN LINEN SERVICE, INC.	LINEN SERVICE FOR STATION 3	190.40
					989.23
07/01/2025	200393	MICHIGAN WILDLIFE SOLUTIONS L	MICHIGAN WILDLIFE SOLUTIONS L	BIRD MITIGATION - NETTING	9,102.00
07/01/2025	200394	MINUTES SERVICES LLC	MINUTES SERVICES LLC	MARCH-25-2025 PC MEETING MINUT	100.00
			MINUTES SERVICES LLC	PC MEETING 05-13-2025 MINUTES	100.00
					200.00
07/01/2025	200395	MLIVE MEDIA GROUP	MLIVE MEDIA GROUP	JOB POSTINGS - CUSTODIAN	395.00
07/01/2025	200396	MOHAMMED YAKUBU	MOHAMMED YAKUBU	SPRING YOUTH SOCCER OFFICIATED	60.00
07/01/2025	200397	NAPA AUTO PARTS*	NAPA AUTO PARTS*	SPRING BRACKE SUPPLIES FOR TRA	77.68
07/01/2025	200398	NEXTCARE URGENT CARE MICHIGAN	NEXTCARE URGENT CARE MICHIGAN	DRUG SCREENS, (POST ACCIDENT,	732.00
07/01/2025	200399	NICHOLAS BENNETT	NICHOLAS BENNETT	REIMBURSEMENT FOR CLOTHING & D	140.84
07/01/2025	200400	OFFICE EXPRESS	OFFICE EXPRESS	BUSINESS CARDS - PROBATION OFF	30.00
			OFFICE EXPRESS	BUSINESS CARDS FOR ORD OFFICER	30.00
			OFFICE EXPRESS	BUSINESS CARDS - PLANNING DIRE	22.00
					82.00
07/01/2025	200401	ONSITE SUBSTANCE ABUSE TESTIN	ONSITE SUBSTANCE ABUSE TESTIN	RECOVERY COURT DRUG TESTING	67.00
07/01/2025	200402	OOMA, INC.	OOMA, INC.	OOMA SERVICES	249.24
07/01/2025	200403	ORCHARD, HILTZ & MCCLIMENT IN	ORCHARD, HILTZ & MCCLIMENT IN	715 N HEWITT	350.00
			ORCHARD, HILTZ & MCCLIMENT IN	ZIPPY	350.00
			ORCHARD, HILTZ & MCCLIMENT IN	979 ECORSE	350.00
			ORCHARD, HILTZ & MCCLIMENT IN	ZAWIYAH FOUNDTATION	782.00
			ORCHARD, HILTZ & MCCLIMENT IN	CULVERS DETAILED ENGINEERING	2,710.50
					4,542.50
07/01/2025	200404	PARKWAY SERVICES, INC.	PARKWAY SERVICES, INC.	PORTABLE TOILET RENTAL - FORD	180.00
			PARKWAY SERVICES, INC.	PORTABLE TOILET RENTAL - FORD	1,240.00
			PARKWAY SERVICES, INC.	PORT A JOHN SERVICE - HYDRO	130.00
			PARKWAY SERVICES, INC.	PORTABLE TOILET RENTAL - FORD	360.00
					1,910.00
07/01/2025	200405	PEPSI BEVERAGES COMPANY	PEPSI BEVERAGES COMPANY	BEVERAGES FOR RESALE IN THE GO	533.50
07/01/2025	200406	PITTSFIELD CHARTER TOWNSHIP	PITTSFIELD CHARTER TOWNSHIP	FIRE TRANING COURSE - WALLGREN	25.00
07/01/2025	200407	PLUMB-PROS	PLUMB-PROS	PERMIT REFUND - PERMIT #PP25-0	37.50
07/01/2025	200408	PRINTING SYSTEMS	PRINTING SYSTEMS	AV SINGLE AV APP POSTCARD WITH	1,727.69

CHECK REGISTER FOR CHARTER TOWNSHIP OF YPSILANTI
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Check Date	Check	Vendor Name	Invoice Vendor	Description	Amount
07/01/2025	200409	PRIORITY ONE EMERGENCY	PRIORITY ONE EMERGENCY	ORD OFFICER CLOTHING ORDER - R	181.96
			PRIORITY ONE EMERGENCY	ORDINANCE OFFICER CLOTHING ORD	84.99
					<hr/> 266.95
07/01/2025	200410	RANDALL MASCHARKA	RANDALL MASCHARKA	PHOTOGRAPHY SERVICES	1,200.00
07/01/2025	200411	RAPHAEL A. PEOPLES	RAPHAEL A. PEOPLES	SPRING YOUTH SOCCER OFFICIATED	80.00
07/01/2025	200412	RENEE SMITH	RENEE SMITH	UNIFORM REIMBURSEMENT FOR 2025	272.70
07/01/2025	200413	RHETT REYES	RHETT REYES	RECOVERY COURT PAYROLL WEEK EN	967.50
			RHETT REYES	RECOVERY COURT PAYROLL WEEK EN	1,032.00
					<hr/> 1,999.50
07/01/2025	200414	RICH DECISIONS PROFESSIONAL D	RICH DECISIONS PROFESSIONAL D	AUTO DETAILING OF ORDINANCETWP	290.00
07/01/2025	200415	RNA FACILITIES MANAGEMENT	RNA FACILITIES MANAGEMENT	IMPROVEMENT OF US-12 CORRIDOR	12,400.00
07/01/2025	200416	ROBERT ACTON	ROBERT ACTON	ROBERT ACTON CONTRACTUAL INSPE	1,000.00
07/01/2025	200417	SAFELITE GLASS CORP.	SAFELITE GLASS CORP.	#96 - DRIVER DOOR WINDOW REPLA	492.02
07/01/2025	200418	SAM'S CLUB DIRECT	SAM'S CLUB DIRECT	OPERATING SUPPLIES AND FOOD AN	449.50
			SAM'S CLUB DIRECT	OPERATING SUPPLIES AND FOOD AN	89.66
			SAM'S CLUB DIRECT	SPORTS DRINK ZERO FOR P&G AND	116.98
			SAM'S CLUB DIRECT	WATER- SAFETY STORE	39.80
			SAM'S CLUB DIRECT	SUPPLIES	(19.96)
					<hr/> 675.98
07/01/2025	200419	SHIRLEY DUPREY	SHIRLEY DUPREY	TAP INSTRUCTION	33.60
07/01/2025	200420	SHL US LLC	SHL US LLC	SKILLS CONTENT BASIC	1,225.00
07/01/2025	200421	SIGNS BY TOMORROW	SIGNS BY TOMORROW	REPAIR NUMBER STICKES	340.00
07/01/2025	200422	SITEONE LANDSCAPE SUPPLY, LLC	SITEONE LANDSCAPE SUPPLY, LLC	IRRIGATION PARTS FOR REPAIR AN	397.69
07/01/2025	200423	SONYA FISCHER	SONYA FISCHER	YOGA DROP IN PARTICIPANTS	56.00
07/01/2025	200424	SOUTHERN COMPUTER WAREHOUSE	SOUTHERN COMPUTER WAREHOUSE	FORTIGATE-101F RENEWALS	1,941.66
07/01/2025	200425	SPARTAN DISTRIBUTORS	SPARTAN DISTRIBUTORS	PARTS FOR TORO 5410 REEL BAR S	84.27
07/01/2025	200426	STAPLES* - ACCOUNT #1026071	STAPLES* - ACCOUNT #1026071	HAND SOAP REFILLS - COMMUNITY	78.69
07/01/2025	200427	STATE OF MI-DEPT. OF HEALTH H	STATE OF MI-DEPT. OF HEALTH H	LICENSE CHARGE - VEHICLE UPGRA	25.00
			STATE OF MI-DEPT. OF HEALTH H	License Charge - vehicle upgra	25.00
			STATE OF MI-DEPT. OF HEALTH H	LICENSE CHARGE - VEHICLE UPGRA	25.00
			STATE OF MI-DEPT. OF HEALTH H	LICENSE CHARGE - VEHICLE UPGRA	25.00
					<hr/> 100.00
07/01/2025	200428	STATE OF MICHIGAN	STATE OF MICHIGAN	EV TRAINING ON 6/3/2025	1,103.00
07/01/2025	200429	STATE OF MICHIGAN**	STATE OF MICHIGAN**	DISBURSEMENT FOR 2024 PILOT	36,973.74
07/01/2025	200430	STEPHEN BROWN	STEPHEN BROWN	Steve Brown Contractual Insp 0	950.00
07/01/2025	200431	TARGET INFORMATION	TARGET INFORMATION	PARK RANGER TICKET BOOKS	1,084.60
07/01/2025	200432	TASK FORCE TIPS	TASK FORCE TIPS	BALL INTAKE REPAIR	2,660.00
07/01/2025	200433	TAWANN HAYES II	TAWANN HAYES II	YOUTH SOCCER GAMES OFFICIATED	80.00
07/01/2025	200434	TAYLOR MADE GOLF COMPANY	TAYLOR MADE GOLF COMPANY	TAYLOR MADE JUNE SPECIALTY PIX	268.70
07/01/2025	200435	UNIVERSITY TRANSLATORS	UNIVERSITY TRANSLATORS	TRANSLATOR SERVICES FOR COURT	170.00
			UNIVERSITY TRANSLATORS	TRANSLATOR SERVICES FOR COURT	170.00
					<hr/> 340.00
07/01/2025	200436	VANTAGE APPAREL	VANTAGE APPAREL	BACKORDERED GREEN OAKS LOGO ST	94.17
07/01/2025	200437	VCLOUD TECH	VCLOUD TECH	VEEAM DATA PLATFORM	6,725.04
07/01/2025	200438	VICTORY LANE	VICTORY LANE	#706 FULL SERVICE OIL CHANGE	71.36
			VICTORY LANE	#708 FULL SERVICE OIL CHANGE	98.96
			VICTORY LANE	#99 FULL SERVICE OIL CHANGE	80.89
					<hr/> 251.21

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Check Date	Check	Vendor Name	Invoice Vendor	Description	Amount
07/01/2025	200439	W.J. O'NEIL COMPANY	W.J. O'NEIL COMPANY	CIVIC CENTER - TROUBLESHOOT AH	354.00
			W.J. O'NEIL COMPANY	CIVIC CENTER - AHU 3 SUPPLY FA	2,515.00
					<u>2,869.00</u>
07/01/2025	200440	WASHTENAW COMMUNITY COLLEGE#	WASHTENAW COMMUNITY COLLEGE#	DISBURSEMENT FOR 2024 PILOT	3,075.63
07/01/2025	200441	WASHTENAW COUNTY TREASURER	WASHTENAW COUNTY TREASURER	DISBURSEMENT FOR 2024 PILOT	6,921.27
07/01/2025	200442	WASHTENAW INTERMEDIATE	WASHTENAW INTERMEDIATE	DISBURSEMENT FOR 2024 PILOT	5,032.14
07/01/2025	200443	WASTE MANAGEMENT	WASTE MANAGEMENT	ACCT. #6-98680-82001	885.32
07/01/2025	200444	WASTE MANAGEMENT	WASTE MANAGEMENT	ACCT. #6-96630-02003	248,474.18
07/01/2025	200445	WEINGARTZ	WEINGARTZ	MISC. CONSUMABLES FROM WEINGAR	123.96
			WEINGARTZ	STIHL POLE TRIMMER HT 135	639.99
					<u>763.95</u>
07/01/2025	200446	YPSILANTI ACE HARDWARE	YPSILANTI ACE HARDWARE	INSECT KILLER/WEED KILLER	51.98
			YPSILANTI ACE HARDWARE	TRU FUEL	39.96
					<u>91.94</u>
07/01/2025	200447	YPSILANTI COMMUNITY SCHOOLS -	YPSILANTI COMMUNITY SCHOOLS -	DISBURSEMENT FOR 2024 PILOT	8,831.76
07/01/2025	200448	YPSILANTI DISTRICT LIBRARY	YPSILANTI DISTRICT LIBRARY	DISBURSEMENT FOR 2024 PILOT	2,242.18
					<u><u>2,242.18</u></u>
AP TOTALS:					
Total of 125 Checks:					809,916.94
Less 0 Void Checks:					0.00
Total of 125 Disbursements:					<u>809,916.94</u>

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CHECK REGISTER FOR CHARTER TOWNSHIP OF YPSILANTI
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Check Date	Check	Vendor Name	Invoice Vendor	Description	Amount
Bank AP AP					
06/16/2025	200313	DTE ENERGY	DTE ENERGY	ACCT. #9100 129 5996 1	274.81
			DTE ENERGY	ACCT. #9100 145 4306 0	98.67
			DTE ENERGY	ACCT. #9100 145 4262 5	54.00
			DTE ENERGY	ACCT. #9100 127 9280 0	940.34
			DTE ENERGY	ACCT. #9100 067 4660 6	1,411.35
			DTE ENERGY	ACCT. #9100 127 9303 0	135.52
			DTE ENERGY	ACCT. #9100 127 9293 3	252.43
			DTE ENERGY	ACCT. #9100 145 5674 0	453.62
			DTE ENERGY	ACCT. #9100 145 4280 7	72.39
			DTE ENERGY	ACCT. #9100 145 5663 3	40.52
			DTE ENERGY	ACCT. #9100 145 4320 1	208.20
			DTE ENERGY	ACCT. #9100 145 4272 4	47.95
			DTE ENERGY	ACCT. #9100 105 1991 6	30.35
			DTE ENERGY	ACCT. #9100 101 8703 7	51.58
			DTE ENERGY	ACCT. #9100 094 4244 3	17.65
			DTE ENERGY	ACCT. 9100 094 4205 4	198.40
			DTE ENERGY	ACCT. #9100 152 0871 3	2,761.81
			DTE ENERGY	ACCT. #9200 621 2917 5	21.69
			DTE ENERGY	ACCT. #9100 127 9344 4	30.42
			DTE ENERGY	ACCT. #9100 145 4294 8	428.07
					<hr/> 7,529.77
06/16/2025	200314	KRONOS SAASHR, INC	KRONOS SAASHR, INC	UKG TIME CLOCKS	21,840.00 V
06/16/2025	200315	YPSILANTI COMMUNITY	YPSILANTI COMMUNITY	ACCT. #2-044-523700-01	126.57
			YPSILANTI COMMUNITY	ACCT. #2-060-771600-01	43.41
					<hr/> 169.98
06/16/2025	200316	KRONOS SAASHR, INC	KRONOS SAASHR, INC	UKG TIME CLOCKS	21,866.66
06/18/2025	200317	COMCAST	COMCAST	ACCT. #8529 10 234 0586337	102.66
			COMCAST	ACCT. #8529 10 234 0884997	178.90
					<hr/> 281.56
06/18/2025	200318	DTE ENERGY	DTE ENERGY	ACCT. #9100 127 9357 6	1,444.32
			DTE ENERGY	ACCT. #9100 127 9333 7	5,477.35
			DTE ENERGY	ACCT. 9100 351 6305 4	2,416.99
			DTE ENERGY	ACCT. #9100 129 7209 7	564.57
					<hr/> 9,903.23
06/18/2025	200319	FERAL FLORA	FERAL FLORA	POLLINATOR KITS DEPOSIT	60.00
06/18/2025	200320	POSTMASTER	POSTMASTER	BULK RATE PERMIT 565 REPLENISH	8,000.00
06/18/2025	200321	SAM'S CLUB DIRECT	SAM'S CLUB DIRECT	SNACKS COMMUNITY CENTER CONCES	272.08
06/18/2025	200322	VERIZON WIRELESS	VERIZON WIRELESS	ACCT. #742203150-00001	141.07
06/18/2025	200323	JOHNSON SIGN CO.	JOHNSON SIGN CO.	REFUND - PERMIT FEES PB25-0208	75.00
AP TOTALS:					
Total of 11 Checks:					70,139.35
Less 1 Void Checks:					21,840.00
Total of 10 Disbursements:					<hr/> 48,299.35

Supervisor
BRENDA L. STUMBO
Clerk
DEBRA A. SWANSON
Treasurer
STAN ELDRIDGE
Trustees
KAREN LOVEJOY ROE
JOHN P. NEWMAN II
GLORIA PETERSON
LARESHA THORNTON



YPSILANTI TOWNSHIP

— WHERE YOUR FUTURE GROWS —

**Accounting
Department**

7200 S. Huron River Drive
Ypsilanti, MI 48197
Phone: (734) 544-4000 Ext 5
Fax: (734) 484-5154

STATEMENTS AND CHECKS

July 15, 2025 BOARD MEETING

ACCOUNTS PAYABLE CHECKS -	\$	1,338,623.09
HAND CHECKS -	\$	260,841.78
CREDIT CARD PURCHASES-	\$	<u>5,694.70</u>
GRAND TOTAL -	\$	1,605,159.57

Clarity Health Care Deductible –

ACH EFT –	\$59,805.05 (JUNE)
ADMIN FEE -	\$ 1,710.28 (JUNE)

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A/P checks

Check Date	Check	Vendor Name	Invoice Vendor	Description	Amount
Bank AP AP					
07/15/2025	200496	A DESIGN LINE	A DESIGN LINE	ORDINANCE OFFICER LOGO APPAREL	816.02
07/15/2025	200497	AAATA	AAATA	DEL PP TAXES APRIL THRU MAY 20	244.60
07/15/2025	200498	AAMCO TRANSMISSIONS AND	AAMCO TRANSMISSIONS AND	#74 A/C RECHARGE	350.20
07/15/2025	200499	ACCUSHRED LLC	ACCUSHRED LLC	SHRED SERVICES	143.50
07/15/2025	200500	AMAZON CAPITAL SERVICES	AMAZON CAPITAL SERVICES	MATS FOR EXTERIOR CIVIC CENTER	349.33
			AMAZON CAPITAL SERVICES	PEST CONTROL	75.00
			AMAZON CAPITAL SERVICES	BRUSHES FOR TRUCKS/FOAM FOR BA	263.90
			AMAZON CAPITAL SERVICES	ORD OFFICER EQUIPMENT	186.98
			AMAZON CAPITAL SERVICES	OFFICE SUPPLIES	209.61
			AMAZON CAPITAL SERVICES	SHARP EL-1197III CALCULATOR &	179.80
			AMAZON CAPITAL SERVICES	OFFICE SUPPLIES - RSD	163.92
			AMAZON CAPITAL SERVICES	MATS FOR EXTERIOR CIVIC CENTER	300.00
			AMAZON CAPITAL SERVICES	COMMUNITY ENGAGEMENT PROJECT	24.20
			AMAZON CAPITAL SERVICES	RESTOCK PPE IN SAFETY STORE	246.26
			AMAZON CAPITAL SERVICES	OPERATION AND OFFICE SUPPLIES	120.90
			AMAZON CAPITAL SERVICES	SAFETY AND OTHER SUPPLIES	117.26
			AMAZON CAPITAL SERVICES	RUST NUTRALIZER	27.20
			AMAZON CAPITAL SERVICES	RETURN FLOOR MAT BRUSH	(54.35)
			AMAZON CAPITAL SERVICES	RETURN FLOOR MAT BRUSH	(54.34)
			AMAZON CAPITAL SERVICES	RETURN FLOOR MAT BRUSH	(54.34)
			AMAZON CAPITAL SERVICES	RETURN FLOOR MAT BRUSH	(54.34)
					2,046.99
07/15/2025	200501	ANDREW BECKER	ANDREW BECKER	FINAL FIRE WIOTHHOLDING RELEAS	15,520.00
07/15/2025	200502	ANN ARBOR CLEANING SUPPLY	ANN ARBOR CLEANING SUPPLY	CLEANING SUPPLIES - PARKS & GR	318.54
07/15/2025	200503	ASSOCIATED FENCE	ASSOCIATED FENCE	FENCE AND CABLE INSTALL - 2500	6,500.00
07/15/2025	200504	ATLANTIC CONSTRUCTION	ATLANTIC CONSTRUCTION	CONCRETE WALKWAY REPLACEMENT F	2,500.00
			ATLANTIC CONSTRUCTION	ADA ACCESS PATH ADDED AROUND F	1,900.00
					4,400.00
07/15/2025	200505	AUTO VALUE YPSILANTI	AUTO VALUE YPSILANTI	#32 CHIPPER TRUCK - FUSE ASSOR	29.29
			AUTO VALUE YPSILANTI	PARKS AND GROUNDS TRAILER HITC	54.97
			AUTO VALUE YPSILANTI	FUEL FILTER FOR GAS PUMP	16.68
			AUTO VALUE YPSILANTI	HYDRAULIC HOSE FOR TORO 5410	57.94
			AUTO VALUE YPSILANTI	#29 - REFRIGERANT FOR A/C	52.38
					211.26
07/15/2025	200506	AUTUMN SHORT	AUTUMN SHORT	CLASS INSTRUCTION	30.00
07/15/2025	200507	B-BALL SKILLS LLC	B-BALL SKILLS LLC	PAY OUT FOR B-BALL SKILLS 6/18	534.38
07/15/2025	200508	BANK SUPPLIES	BANK SUPPLIES	RECEIPT PAPER	95.00
07/15/2025	200509	BARR ENGINEERING COMPANY	BARR ENGINEERING COMPANY	PROFESSIONAL SERVICES FROM 5/1	4,421.50
07/15/2025	200510	BIANCO TOURS	BIANCO TOURS	50 & BEYOND BAY CITY	1,562.50
07/15/2025	200511	BRAUN CONSRTUCTION GROUP, INC	BRAUN CONSRTUCTION GROUP, INC	IT ROOM RENOVATION PROJECT	12,366.43
			BRAUN CONSRTUCTION GROUP, INC	14B D COURT RENOVATION	586,513.00
					598,879.43
07/15/2025	200512	BREATHING AIR SYSTEMS	BREATHING AIR SYSTEMS	SEMI ANNUAL PREVENTATIVE MAINT	829.06
07/15/2025	200513	BRS FIELDS OPS, LLC	BRS FIELDS OPS, LLC	PERMIT REFUND REQUEST #PE-0218	97.50
07/15/2025	200514	CECIL PAYNE	CECIL PAYNE	REFUND REQUEST COMMUNITY CENTE	111.00
07/15/2025	200515	CHARLES POPE	CHARLES POPE	VISITING JUDGE INVOICE	444.80
07/15/2025	200516	CINTAS FIRST AID & SAFETY	CINTAS FIRST AID & SAFETY	FIRST AID CABINET SERVICE - 6/	65.82

Check Date	Check	Vendor Name	Invoice Vendor	Description	Amount
			CINTAS FIRST AID & SAFETY	FIRST AID CABINET SERVICE - 6/	46.16
			CINTAS FIRST AID & SAFETY	FIRST AID CABINET SERVICE - 6/	7.53
			CINTAS FIRST AID & SAFETY	FIRST AID CABINET SERVICE - 6/	42.58
			CINTAS FIRST AID & SAFETY	FIRST AID CABINET SERVICE - 6/	7.53
			CINTAS FIRST AID & SAFETY	FIRST AID CABINET SERVICE - 6/	32.75
			CINTAS FIRST AID & SAFETY	FIRST AID CABINET SERVICE - 6/	19.02
			CINTAS FIRST AID & SAFETY	First Aid Cabinet Service - 6/	7.53
			CINTAS FIRST AID & SAFETY	MONTHLY SERVICE FOR AED AT HOL	134.42
			CINTAS FIRST AID & SAFETY	EYE WASH STATION RENTAL	99.18
					<u>462.52</u>
07/15/2025	200517	CLARION EVENTS INC	CLARION EVENTS INC	FIRE ENGINEERING TRAINING	3,185.00
07/15/2025	200518	CORRIGAN MOVING SYSTEMS	CORRIGAN MOVING SYSTEMS	STORAGE/EQUIPMENT RENTAL	2,595.00
07/15/2025	200519	CORRIGAN OIL COMPANY	CORRIGAN OIL COMPANY	OIL SAMPLING KITS	291.86
07/15/2025	200520	CRYSTAL FLASH, INC.	CRYSTAL FLASH, INC.	COMM. CENTER: REFILL GAS FUEL	1,051.01
			CRYSTAL FLASH, INC.	FORD LAKE PARK - DIESEL FUEL F	794.06
			CRYSTAL FLASH, INC.	FORD LAKE PARK: REFILL GAS FUE	1,485.88
					<u>3,330.95</u>
07/15/2025	200521	CSI EMERGENCY APPARATUS, LLC	CSI EMERGENCY APPARATUS, LLC	UNIT C - REPLACE CAB TILT LOCK	1,965.08
			CSI EMERGENCY APPARATUS, LLC	UNIT D - REPLACE REAR BRAKE CH	1,493.27
			CSI EMERGENCY APPARATUS, LLC	UNIT E AIR LEAK	1,204.64
			CSI EMERGENCY APPARATUS, LLC	UNIT E -REPLACE REAR BRAKE CHA	1,628.27
			CSI EMERGENCY APPARATUS, LLC	UNIT E -REPLACE REAR DOOR LOCK	469.54
			CSI EMERGENCY APPARATUS, LLC	UNIT E - DRIVER SEAT REPAIR	249.69
			CSI EMERGENCY APPARATUS, LLC	PARTS FOR BAGS FOR TRUCKS	445.68
			CSI EMERGENCY APPARATUS, LLC	GLOVES	899.72
			CSI EMERGENCY APPARATUS, LLC	GLOVES	886.50
			CSI EMERGENCY APPARATUS, LLC	GLOVES	882.15
			CSI EMERGENCY APPARATUS, LLC	ENFORCER AIR 3	1,150.00
					<u>11,274.54</u>
07/15/2025	200522	DANCE WITH ELEGANCE	DANCE WITH ELEGANCE	DROP-IN FEES FOR DANCE WITH E	173.60
07/15/2025	200523	DES MOINES STAMP MFG. CO.	DES MOINES STAMP MFG. CO.	STAMPS	54.15
07/15/2025	200524	DIUBLE EQUIPMENT INC.	DIUBLE EQUIPMENT INC.	BOOM SWING MOWER	11,680.00
			DIUBLE EQUIPMENT INC.	ZERO TURN MOWER PARTS - COVER-	647.51
					<u>12,327.51</u>
07/15/2025	200525	DOHYOUN LEE	DOHYOUN LEE	PAYMENT FOR YOUTH TENNIS LESSO	120.00
07/15/2025	200526	DRY BASEMENTS PLUS LLC	DRY BASEMENTS PLUS LLC	REFUND PERMIT #PP25-0138	37.50
07/15/2025	200527	DYNAMIC MARKETING LLC	DYNAMIC MARKETING LLC	NOTICE PLACARDS/LABELS - 2 VER	465.00
07/15/2025	200528	EDWARD MICHOWSKI	EDWARD MICHOWSKI	SOFTBALL OFFICIATED 6/17-7/1 4	160.00
07/15/2025	200529	ELIZABETH GIORDANO	ELIZABETH GIORDANO	SPRING YOUTH SOCCER GAMES OFFI	80.00
07/15/2025	200530	EMILY DIETZEL	EMILY DIETZEL	REFUND SECURITY DEPOSIT	100.00
07/15/2025	200531	FERAL FLORA	FERAL FLORA	POLLINATOR KITS FOR CIVIC CENT	180.00
07/15/2025	200532	FINISHED BASEMENTS PLUS, LLC	FINISHED BASEMENTS PLUS, LLC	REFUND PERMIT #PB25-0351	322.50
07/15/2025	200533	FIRE CATT	FIRE CATT	GROUND LADDER TESTING	10,175.70
07/15/2025	200534	GARY TURNBULL	GARY TURNBULL	PAYMENT FOR SOFTBALL GAMES OFF	160.00
07/15/2025	200535	GRAINGER	GRAINGER	FLP GARAGE - COMPRESSOR TUBE B	70.30
			GRAINGER	SOAP & TOILET PAPER DISPENSER	1,029.84
					<u>1,100.14</u>
07/15/2025	200536	GREG MCKINNEY	GREG MCKINNEY	PAYMENT FOR SOFTBALL GAMES OFF	240.00
07/15/2025	200537	GRIFFIN PEST SOLUTIONS	GRIFFIN PEST SOLUTIONS	PARKS AND GROUNDS GARAGE - GAT	32.20

Check Date	Check	Vendor Name	Invoice Vendor	Description	Amount
			GRIFFIN PEST SOLUTIONS	PARKS AND GROUNDS GARAGE - MON	48.00
					80.20
07/15/2025	200538	GROSS ELECTRIC	GROSS ELECTRIC	CANOPY LIGHTS FOR FLP GARAGE	130.00
			GROSS ELECTRIC	CANOPY LIGHTS FOR FLP GARAGE	390.00
					520.00
07/15/2025	200539	GUARDIAN ALARM	GUARDIAN ALARM	CUSTOMER #13113	2,747.64
			GUARDIAN ALARM	CUSTOMER #13113	2,747.64
			GUARDIAN ALARM	CUSTOMER #13113 REMAINDER OF B	899.72
					6,395.00
07/15/2025	200540	HENRY KLIBER	HENRY KLIBER	YOUTH BASKETBALL OFFICIATED 3/	45.00
07/15/2025	200541	HOME DEPOT	HOME DEPOT	MAINT. SUPPLIES - HUSKY SPRAYE	19.98
			HOME DEPOT	FLP GARAGE & MAINT. SUPPLIES -	65.06
			HOME DEPOT	MAINT. GARAGE - 6' TOILET AUG	59.00
			HOME DEPOT	FLP MAINT. GARAGE - DECK/FENCE	47.94
			HOME DEPOT	MAINT. GARAGE - STACKABLE BINS	75.84
			HOME DEPOT	WEED KILLER FOR GARAGES	54.44
			HOME DEPOT	FLP MAINT. GARAGE - WOOD SEALE	195.30
			HOME DEPOT	MAINT. SUPPLIES - SPRAYER NOZZ	256.96
			HOME DEPOT	REPAIRS FOR THE SPIGOT AT THE	75.29
			HOME DEPOT	REPAIRS FOR THE SPIGOT AT THE	9.65
			HOME DEPOT	FLP GARAGE - CAULK	16.96
			HOME DEPOT	ACCT. #6035 3225 0163 9862	(27.98)
					848.44
07/15/2025	200542	HURON RIVER WATERSHED COUNCIL	HURON RIVER WATERSHED COUNCIL	2025 ANNUAL DUES/COMPLIANCE DU	19,710.26
07/15/2025	200543	HURON RIVER WATERSHED COUNCIL	HURON RIVER WATERSHED COUNCIL	2025 HRWC MEMBERSHIP DUES	2,338.56
07/15/2025	200544	INTEGRITY BUSINESS SOLUTIONS	INTEGRITY BUSINESS SOLUTIONS	COPY PAPER - GENERAL	999.75
			INTEGRITY BUSINESS SOLUTIONS	COPY PAPER - COMMUNITY CENTER	159.96
					1,159.71
07/15/2025	200545	JIBRIL NAEEM	JIBRIL NAEEM	MODERNDAY MARTIAL ARTS PAYOUT	1,011.50
07/15/2025	200546	KELLY DOE	KELLY DOE	2025 Uniform Allowance reimbur	335.67
07/15/2025	200547	KEVIN LAWSON	KEVIN LAWSON	SPRING 2025 YOUTH SOCCER SITE	120.00
07/15/2025	200548	KONE INC	KONE INC	PASSENGER ELEVATOR 15152 NOT O	408.92
07/15/2025	200549	LARRY KENYON	LARRY KENYON	SOFTBALL GAMES OFFICIATED 6/30	80.00
07/15/2025	200550	LAWRENCE HENDRICKS	LAWRENCE HENDRICKS	PAYMENT FOR TENNIS LESSONS 6/7	200.00
07/15/2025	200551	LIFE AFTER INCARCERATION	LIFE AFTER INCARCERATION	LAI TR COMMUNITY BEAUTIFICATION	12,600.00
07/15/2025	200552	LINDA GRAHAM	LINDA GRAHAM	REFUND SECURITY DEPOSIT	100.00
07/15/2025	200553	LINDE GAS & EQUIPMENT INC	LINDE GAS & EQUIPMENT INC	OXYGEN RENTAL	186.90
			LINDE GAS & EQUIPMENT INC	OXYGEN RENTAL	458.92
					645.82
07/15/2025	200554	LOOKING GOOD LAWNS	LOOKING GOOD LAWNS	LGL INVOICE YTNWM-625-02 NOXIO	1,745.00
			LOOKING GOOD LAWNS	LGL INVOICE YTTR0625-1 TRASH R	1,745.00
			LOOKING GOOD LAWNS	LGL INVOICE YTNWM-625-1 NOXIOU	3,510.00
			LOOKING GOOD LAWNS	LGL INVOICE YTNWM-626-03 NOXIO	550.00
					7,550.00
07/15/2025	200555	LOWE'S	LOWE'S	LOONFEATHER PARK DOCK - DANGER	9.93
07/15/2025	200556	MADDISON WELCH	MADDISON WELCH	REFUND SECURITY DEPOSIT	100.00

Check Date	Check	Vendor Name	Invoice Vendor	Description	Amount
07/15/2025	200557	MARIA BATIANIS	MARIA BATIANIS	reimbursement for Notary/parki	76.30
07/15/2025	200558	MCLAIN AND WINTERS	MCLAIN AND WINTERS	LEGAL SERVICES - JUNE 2025	162,511.29
07/15/2025	200559	MELODY WOODS	MELODY WOODS	PAINTING W/ MELODY INSTRUCTION	87.50
07/15/2025	200560	MICHAEL J. CROMER	MICHAEL J. CROMER	RED WING WORK BOOTS REIMBURSEM	150.00
07/15/2025	200561	MICHIGAN ASSOC. OF PLANNING	MICHIGAN ASSOC. OF PLANNING	ANNUAL GROUP MEMBERSHIP DUES	775.00
07/15/2025	200562	MICHIGAN CAT	MICHIGAN CAT	FILTERS AND COOLANT FOR EQUIPM	168.06
			MICHIGAN CAT	FILTERS AND COOLANT FOR EQUIPM	31.20
			MICHIGAN CAT	FILTERS AND COOLANT FOR EQUIPM	171.46
					370.72
07/15/2025	200563	MICHIGAN LINEN SERVICE, INC.	MICHIGAN LINEN SERVICE, INC.	MAINT. GARAGE LAUNDRY SERVICE	24.00
			MICHIGAN LINEN SERVICE, INC.	LEC LAUNDRY SERVICE FOR 2025	67.25
			MICHIGAN LINEN SERVICE, INC.	COMMUNITY CENTER LAUNDRY SERVI	49.50
			MICHIGAN LINEN SERVICE, INC.	CIVIC CENTER LAUNDRY SERVICE F	101.10
			MICHIGAN LINEN SERVICE, INC.	COMMUNITY CENTER LAUNDRY SERVI	49.50
			MICHIGAN LINEN SERVICE, INC.	HOLMES RD LAUNDRY SERVICE FOR	18.50
			MICHIGAN LINEN SERVICE, INC.	CIVIC CENTER LAUNDRY SERVICE F	101.10
			MICHIGAN LINEN SERVICE, INC.	MAINT. GARAGE LAUNDRY SERVICE	24.00
			MICHIGAN LINEN SERVICE, INC.	LINEN SERVICE FOR STATION 3	190.40
			MICHIGAN LINEN SERVICE, INC.	LINEN SERVICE FOR STATION 4	85.03
			MICHIGAN LINEN SERVICE, INC.	LINEN SERVICE FOR STATION 3	86.26
			MICHIGAN LINEN SERVICE, INC.	LAUNDREY SERVICES FOR 2025 SEA	24.00
			MICHIGAN LINEN SERVICE, INC.	LINEN SERVICE FOR STATION 3	190.40
			MICHIGAN LINEN SERVICE, INC.	LINEN SERVICE FOR STATION 4	85.03
			MICHIGAN LINEN SERVICE, INC.	LINEN SERVICE FOR STATION 3	86.26
			MICHIGAN LINEN SERVICE, INC.	LAUNDREY SERVICES FOR 2025 SEA	24.00
			MICHIGAN LINEN SERVICE, INC.	MAINT. GARAGE LAUNDRY SERVICE	24.00
			MICHIGAN LINEN SERVICE, INC.	COMMUNITY CENTER LAUNDRY SERVI	49.50
			MICHIGAN LINEN SERVICE, INC.	CIVIC CENTER LAUNDRY SERVICE F	101.10
			MICHIGAN LINEN SERVICE, INC.	HOLMES RD LAUNDRY SERVICE FOR	18.50
					1,399.43
07/15/2025	200564	MINUTES SERVICES LLC	MINUTES SERVICES LLC	JUNE 4, 2025 ZONING BOARD OF A	100.00
07/15/2025	200565	MOHAMMED YAKUBU	MOHAMMED YAKUBU	SPRING YOUTH SOCCER OFFICIATED	60.00
07/15/2025	200566	NATIONAL ALLIANCE FOR YOUTH S	NATIONAL ALLIANCE FOR YOUTH S	EQUIPMENT FOR SMART START BASE	1,132.00
07/15/2025	200567	ORCHARD, HILTZ & MCCLIMENT IN	ORCHARD, HILTZ & MCCLIMENT IN	805 GOUCHNOUR MEETINGS	350.00
			ORCHARD, HILTZ & MCCLIMENT IN	TITA TORTILLAS DETAILED ENGINE	931.50
			ORCHARD, HILTZ & MCCLIMENT IN	CREEKSIDE VILLAGE NORTH PSP RE	458.00
			ORCHARD, HILTZ & MCCLIMENT IN	DTE GAS RELOCATION FORD LAKE D	2,195.00
			ORCHARD, HILTZ & MCCLIMENT IN	ZAWIYAH FOUADATION DETAILED ENG	486.00
			ORCHARD, HILTZ & MCCLIMENT IN	BD BOND REFUND	486.00
			ORCHARD, HILTZ & MCCLIMENT IN	CULVERS DETAILED ENGINEERING	796.00
			ORCHARD, HILTZ & MCCLIMENT IN	MS4 PERMIT ASSISTANCE	1,362.50
			ORCHARD, HILTZ & MCCLIMENT IN	CONSTRUCTION ADMINISTRATION FO	1,447.25
			ORCHARD, HILTZ & MCCLIMENT IN	CIVIC CENTER POND CONSTRUCTION	1,670.75
					10,183.00
07/15/2025	200568	PEPSI BEVERAGES COMPANY	PEPSI BEVERAGES COMPANY	BEVERAGES FOR RESALE IN THE GO	461.40
07/15/2025	200569	PINTER'S FLOWERLAND, INC.	PINTER'S FLOWERLAND, INC.	PINTER'S FLOWERLAND - ANNALS/P	237.38
			PINTER'S FLOWERLAND, INC.	PINTER'S FLOWERLAND -PERENNIAL	396.55
			PINTER'S FLOWERLAND, INC.	PINTER FLOWERS	541.56
			PINTER'S FLOWERLAND, INC.	PINTER'S FLOWERLAND - ANNALS/P	352.53
			PINTER'S FLOWERLAND, INC.	PINTER FLOWERS (2ND ORDER OF S	479.40
					2,007.42

Check Date	Check	Vendor Name	Invoice Vendor	Description	Amount
07/15/2025	200570	PRINTING SYSTEMS	PRINTING SYSTEMS	PERMIT PRINTED ON 13,000 OUTSI	130.00
			PRINTING SYSTEMS	PERMIT PRINTED ON 3,000 OUTSID	30.00
					<u>160.00</u>
07/15/2025	200571	PRIORITY ONE EMERGENCY	PRIORITY ONE EMERGENCY	ORD OFFICER JGE - PANTS	102.99
			PRIORITY ONE EMERGENCY	ORD OFFICER - RK UNIFORM SHIRT	55.99
			PRIORITY ONE EMERGENCY	ORD OFFICER - JGE - WORK PANTS	102.99
			PRIORITY ONE EMERGENCY	PARTS FOR OUTFITTING THE NEW F	4,231.89
					<u>4,493.86</u>
07/15/2025	200572	PROSITE SERVICES	PROSITE SERVICES	SECURITY FENCE	165.00
07/15/2025	200573	RANDALL MASCHARKA	RANDALL MASCHARKA	PHOTOGRAPHY SERVICES	800.00
07/15/2025	200574	RAPHAEL A. PEOPLES	RAPHAEL A. PEOPLES	SPRING YOUTH SOCCER OFFICIATED	80.00
07/15/2025	200575	RHETT REYES	RHETT REYES	RECOVERY COURT PAYROLL WEEK EN	1,032.00
			RHETT REYES	RECOVERY COURT PAYROLL WEEK EN	1,032.00
					<u>2,064.00</u>
07/15/2025	200576	RICH DECISIONS PROFESSIONAL D	RICH DECISIONS PROFESSIONAL D	AUTO DETAILING OF ORDINANCETWP	580.00
07/15/2025	200577	RICHARDSON AWNING	RICHARDSON AWNING	GREEN OAKS GOLF SHOP AWNING RE	5,250.00
07/15/2025	200578	RNA FACILITIES MANAGEMENT	RNA FACILITIES MANAGEMENT	2025 ANNUAL MOWING CONTRACT -	1,040.00
			RNA FACILITIES MANAGEMENT	2025 ANNUAL MOWING CONTRACT -	12,570.00
					<u>13,610.00</u>
07/15/2025	200579	ROBERT ACTON	ROBERT ACTON	Robert Acton Contractual Inspe	1,000.00
07/15/2025	200580	ROTO-ROOTER	ROTO-ROOTER	LEC PLUMBING ISSUES	360.00
07/15/2025	200581	SAM'S CLUB DIRECT	SAM'S CLUB DIRECT	WEED KILLER - CIVIC	57.96
			SAM'S CLUB DIRECT	GATORADE AND WATER FOR PARK ST	192.76
			SAM'S CLUB DIRECT	OPERATING SUPPLIES AND FOOD AN	333.68
			SAM'S CLUB DIRECT	WATER- P&G	39.80
			SAM'S CLUB DIRECT	4TH OF JULY PARADE CANDY	109.91
			SAM'S CLUB DIRECT	FOOD AND BEVERAGE FOR RESALE I	242.56
					<u>976.67</u>
07/15/2025	200582	SHERWIN WILLIAMS COMPANY	SHERWIN WILLIAMS COMPANY	PARKS AND GROUNDS - PSI HOSE F	69.78
			SHERWIN WILLIAMS COMPANY	RETURN PSI HOSE	(34.89)
					<u>34.89</u>
07/15/2025	200583	SHRADER TIRE & OIL	SHRADER TIRE & OIL	TIRES FOR TORO MOWERS	794.83
07/15/2025	200584	SITEONE LANDSCAPE SUPPLY, LLC	SITEONE LANDSCAPE SUPPLY, LLC	RAKES, IRRIGATION PARTS FOR RE	885.59
			SITEONE LANDSCAPE SUPPLY, LLC	FD-102 RAINBIRD DECODERS	582.24
			SITEONE LANDSCAPE SUPPLY, LLC	3 FD 102 RAINBIRD DECODERS	873.36
					<u>2,341.19</u>
07/15/2025	200585	SPARTAN BARRICADING & TRAFFIC	SPARTAN BARRICADING & TRAFFIC	MESSAGE BOARD RENTAL	305.00
07/15/2025	200586	SPARTAN DISTRIBUTORS	SPARTAN DISTRIBUTORS	PURCHASE OF 2X TORO GREENSMAST	44,626.14
07/15/2025	200587	STANDARD PRINTING	STANDARD PRINTING	2 BOXES OF WINDOW ENVELOPES FO	335.00
07/15/2025	200588	STEPHEN BROWN	STEPHEN BROWN	STEVE BROWN CONTRACTUAL INSP 0	1,450.00
07/15/2025	200589	TAWANN HAYES II	TAWANN HAYES II	YOUTH SOCCER GAMES OFFICIATED	80.00
07/15/2025	200590	TERMINIX	TERMINIX	PEST CONTROL SERVICES FOR GREE	87.98
07/15/2025	200591	TESS SEIBERT	TESS SEIBERT	YOUTH DANCE INSTRUCTOR	192.00
07/15/2025	200592	UNITED STATES POST OFFICE	UNITED STATES POST OFFICE	50 & BEYOND MAILING JULY - DEC	2,070.00

07/07/2025 03:16 PM
User: lstanfield
DB: Ypsilanti-Twp

CHECK REGISTER FOR CHARTER TOWNSHIP OF YPSILANTI
CHECK NUMBERS 200496 - 200616

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Check Date	Check	Vendor Name	Invoice Vendor	Description	Amount
07/15/2025	200593	UNITED STATES POSTAL SERVICE	UNITED STATES POSTAL SERVICE	Replenish postage machine	10,000.00
07/15/2025	200594	USA SOFTBALL OF MICHIGAN	USA SOFTBALL OF MICHIGAN	PAYMENT OF REGISTRATION FOR WO	180.00
07/15/2025	200595	VAN BUREN SCHOOL DISTRICT	VAN BUREN SCHOOL DISTRICT	DEL PP TAXES APRIL THRU MAY 20	971.76
07/15/2025	200596	VIRGIL MINGAS	VIRGIL MINGAS	DJ SERVICES FOR CAR SHOW EVENT	500.00
07/15/2025	200597	VITAL RECORDS CONTROL	VITAL RECORDS CONTROL	MARCH 27, 2025 CIVIC CENTER SH	1,197.36
07/15/2025	200598	W.J. O'NEIL COMPANY	W.J. O'NEIL COMPANY	LEC - HVAC SQUEALING NOISE	482.00
			W.J. O'NEIL COMPANY	LEC TROUBLESHOOT OVERHEATING -	393.00
			W.J. O'NEIL COMPANY	REPLACE ACTUATOR VALVE (INV#64	1,684.38
					<u>2,559.38</u>
07/15/2025	200599	WALLSIDE INC.	WALLSIDE INC.	REPLACEMENT OF WINDOW AT GOLF	450.00
07/15/2025	200600	WASHTENAW COMMUNITY COLLEGE#	WASHTENAW COMMUNITY COLLEGE#	DEL PP TAXES APRIL THRU MAY 20	605.48
07/15/2025	200601	WASHTENAW COUNTY ROAD COMMISS	WASHTENAW COUNTY ROAD COMMISS	2024 THIRD ROAD AGREEMENT	290,135.43
07/15/2025	200602	WASHTENAW COUNTY TREASURER	WASHTENAW COUNTY TREASURER	DEL PP TAXES APRIL THRU MAY 20	6,824.79
07/15/2025	200603	WASHTENAW COUNTY TREASURER	WASHTENAW COUNTY TREASURER	MOBILE HOME FEES COLLECTED APR	7,322.50
07/15/2025	200604	WASHTENAW COUNTY WATER RESOUR	WASHTENAW COUNTY WATER RESOUR	VERMIN MANAGEMENT SERVICES	8,641.46
07/15/2025	200605	WASHTENAW INTERMEDIATE	WASHTENAW INTERMEDIATE	DEL PP TAXES APRIL THRU MAY 20	427.06
07/15/2025	200606	WAYNE ISD	WAYNE ISD	DEL PP TAXES APRIL THRU MAY 20	559.55
07/15/2025	200607	WEST BEND INSURANCE COMPANY	WEST BEND INSURANCE COMPANY	NOTARY BOND FOR MYLA HARRIS	55.00
			WEST BEND INSURANCE COMPANY	NOTARY BOND FOR MASON KAISER	55.00
					<u>110.00</u>
07/15/2025	200608	WEST SHORE SERVICES, INC.	WEST SHORE SERVICES, INC.	SERVICE CALL TO SITE 11 - OUTD	585.00
07/15/2025	200609	WEX BANK	WEX BANK	WEX CREDIT CARD CHARGES ENDING	1,925.96
07/15/2025	200610	WILLIAM KLIBER IV	WILLIAM KLIBER IV	BASKETBALL OFFICIATED 3/22 3 G	45.00
07/15/2025	200611	WITMER PUBLIC SAFELY GROUP, I	WITMER PUBLIC SAFELY GROUP, I	NEW SHIELDS FOR FF'S	420.26
07/15/2025	200612	YAMAHA GOLF CARS PLUS	YAMAHA GOLF CARS PLUS	GOLF CART REPAIRS TO #1,64,7,1	204.89
07/15/2025	200613	YPSILANTI ACE HARDWARE	YPSILANTI ACE HARDWARE	FLP GARAGE MAINT. SUPPLIES -	29.27
			YPSILANTI ACE HARDWARE	LAWN ITEMS FOR HQ	86.98
			YPSILANTI ACE HARDWARE	BLACK TOP REPAIR FOR #4	33.98
					<u>150.23</u>
07/15/2025	200614	YPSILANTI COMMUNITY SCHOOLS -	YPSILANTI COMMUNITY SCHOOLS -	DEL PP TAXES APRIL THRU MAY 20	133.60
07/15/2025	200615	YPSILANTI COMMUNITY SCHOOLS -	YPSILANTI COMMUNITY SCHOOLS -	DEL PP TAXES APRIL THRU MAY 20	1,496.73
07/15/2025	200616	YPSILANTI DISTRICT LIBRARY	YPSILANTI DISTRICT LIBRARY	DEL PP TAXES APRIL THRU MAY 20	3,354.77

AP TOTALS:

Total of 121 Checks:
Less 0 Void Checks:

1,338,623.09
0.00

Total of 121 Disbursements:

1,338,623.09

Hand Checks

Check Date	Check	Vendor Name	Invoice Vendor	Description	Amount
Bank AP AP					
06/26/2025	200449	ADRIENNE RACHELLE DEMOND	ADRIENNE RACHELLE DEMOND	JUROR COMPENSATION	18.00
06/26/2025	200450	ALEXTIA JEANTAL BRANN	ALEXTIA JEANTAL BRANN	JUROR COMPENSATION	66.00
06/26/2025	200451	AMY MARIE ROBINSON	AMY MARIE ROBINSON	JUROR COMPENSATION	18.00
06/26/2025	200452	ANDREA ELIZABETH SELL	ANDREA ELIZABETH SELL	JUROR COMPENSATION	18.00
06/26/2025	200453	ANTHONY LAMAR DAVIS	ANTHONY LAMAR DAVIS	JUROR COMPENSATION	18.00
06/26/2025	200454	ASHLEY MARIE YEO	ASHLEY MARIE YEO	JUROR COMPENSATION	18.00
06/26/2025	200455	BRITTANY JASMIN CASTRO	BRITTANY JASMIN CASTRO	JUROR COMPENSATION	18.00
06/26/2025	200456	CATHERINE CHIDI ONUOHA	CATHERINE CHIDI ONUOHA	JUROR COMPENSATION	18.00
06/26/2025	200457	CHRISTINA MAIRE HEDGLEN	CHRISTINA MAIRE HEDGLEN	JUROR COMPENSATION	18.00
06/26/2025	200458	CHRISTOPHER RYAN-DAVID ROLSTO	CHRISTOPHER RYAN-DAVID ROLSTO	JUROR COMPENSATION	18.00
06/26/2025	200459	CRYSTAL JADE BISSELL	CRYSTAL JADE BISSELL	JUROR COMPENSATION	66.00
06/26/2025	200460	DENISE ANTOINETTE BRIDGES	DENISE ANTOINETTE BRIDGES	JUROR COMPENSATION	18.00
06/26/2025	200461	DONNA MARIE CARCONE	DONNA MARIE CARCONE	JUROR COMPENSATION	18.00
06/26/2025	200462	EDDIE TERRELL DAVIS	EDDIE TERRELL DAVIS	JUROR COMPENSATION	66.00
06/26/2025	200463	EMMA LOUSE GROVE	EMMA LOUSE GROVE	JUROR COMPENSATION	66.00
06/26/2025	200464	FLORENCE MARIE ROBERSON	FLORENCE MARIE ROBERSON	JUROR COMPENSATION	18.00
06/26/2025	200465	HALLEY EVELYN REFALOSELLS	HALLEY EVELYN REFALOSELLS	JUROR COMPENSATION	18.00
06/26/2025	200466	IJEOMA CHRISTINE EGENTI	IJEOMA CHRISTINE EGENTI	JUROR COMPENSATION	18.00
06/26/2025	200467	JAMES STEVEN POPIOLEK	JAMES STEVEN POPIOLEK	JUROR COMPENSATION	18.00
06/26/2025	200468	JAYON LEE GREGORY	JAYON LEE GREGORY	JUROR COMPENSATION	18.00
06/26/2025	200469	KADENSE CHRISTINE ROBINSON	KADENSE CHRISTINE ROBINSON	JUROR COMPENSATION	18.00
06/26/2025	200470	KAREN BARBER	KAREN BARBER	JUROR COMPENSATION	18.00
06/26/2025	200471	KAREN JOY AUFDEMBERGE	KAREN JOY AUFDEMBERGE	JUROR COMPENSATION	66.00
06/26/2025	200472	KASSANDRA DEANNA WHITE	KASSANDRA DEANNA WHITE	JUROR COMPENSATION	18.00
06/26/2025	200473	KEVIN LUKE UTENDORF	KEVIN LUKE UTENDORF	JUROR COMPENSATION	18.00
06/26/2025	200474	KRISTIN VESPA	KRISTIN VESPA	JUROR COMPENSATION	66.00
06/26/2025	200475	LAURIE KAY DEAN	LAURIE KAY DEAN	JUROR COMPENSATION	18.00
06/26/2025	200476	LAZETTE STITT	LAZETTE STITT	JUROR COMPENSATION	18.00
06/26/2025	200477	MOON DIAB	MOON DIAB	JUROR COMPENSATION	18.00
06/26/2025	200478	NATHIE-JO YRAD MALAYANG	NATHIE-JO YRAD MALAYANG	JUROR COMPENSATION	18.00
06/26/2025	200479	PATRICK LEE HUDSON	PATRICK LEE HUDSON	JUROR COMPENSATION	18.00
06/26/2025	200480	PAULA SAWITSKI	PAULA SAWITSKI	JUROR COMPENSATION	18.00
06/26/2025	200481	RICHARD ADAM MCCOLLISTER	RICHARD ADAM MCCOLLISTER	JUROR COMPENSATION	18.00
06/26/2025	200482	RONALD SPEARS	RONALD SPEARS	JUROR COMPENSATION	18.00
06/26/2025	200483	SARA FRANCES THIBODEAU	SARA FRANCES THIBODEAU	JUROR COMPENSATION	18.00
06/26/2025	200484	SARAH ELIZABETH RIEK	SARAH ELIZABETH RIEK	JUROR COMPENSATION	18.00
06/26/2025	200485	SHARLENE SHANKWILER	SHARLENE SHANKWILER	JUROR COMPENSATION	18.00
06/26/2025	200486	VALIESA ANN PATILLO	VALIESA ANN PATILLO	JUROR COMPENSATION	66.00
06/26/2025	200487	WENDY MICHELLE ALCORN	WENDY MICHELLE ALCORN	JUROR COMPENSATION	18.00
06/30/2025	200488	BLUE CROSS BLUE SHIELD OF MI	BLUE CROSS BLUE SHIELD OF MI	HEALTH INSURANCE - JULY 2025	197,546.75
06/30/2025	200489	BLUE CROSS BLUE SHIELD OF MIC	BLUE CROSS BLUE SHIELD OF MIC	HEALTH INSURANCE - JULY 2025	34,195.26
06/30/2025	200490	COMCAST	COMCAST	ACCT. #8529 10 234 0884997	193.90
			COMCAST	ACCT. #8529 10 234 0124352	123.29
					317.19
06/30/2025	200491	DELTA DENTAL PLAN OF MICHIGAN	DELTA DENTAL PLAN OF MICHIGAN	DENTAL INSURANCE - JULY 2025	13,988.50
			DELTA DENTAL PLAN OF MICHIGAN	DENTAL INSURANCE - JULY 2025	33.52
					14,022.02
06/30/2025	200492	DTE ENERGY	DTE ENERGY	ACCT. #9100 152 0871 3	2,755.46
			DTE ENERGY	ACCT. #9100 127 9344 4	44.42
			DTE ENERGY	ACCT. #9200 621 2917 5	28.74
			DTE ENERGY	ACCT. #9100 123 5216 7	24.07
			DTE ENERGY	ACCT. #9100 094 4215 3	21.63

07/08/2025 09:09 AM
User: lstanfield
DB: Ypsilanti-Twp

CHECK REGISTER FOR CHARTER TOWNSHIP OF YPSILANTI
CHECK NUMBERS 200449 - 200495

Page: 2/2

Check Date	Check	Vendor Name	Invoice Vendor	Description	Amount
					<u>2,874.32</u>
06/30/2025	200493	STANDARD INSURANCE COMPANY	STANDARD INSURANCE COMPANY	LIFE & DISABILITY - JULY 2025	6,120.42
06/30/2025	200494	STANDARD INSURANCE COMPANY	STANDARD INSURANCE COMPANY	VSP - JULY 2025	3,079.64
06/30/2025	200495	YPSILANTI COMMUNITY	YPSILANTI COMMUNITY	LIFT STATION MAINT. TUTTLE HIL	246.39
			YPSILANTI COMMUNITY	LIFT - STATION MAINT. FORD BLV	123.00
			YPSILANTI COMMUNITY	LIFT - STATION MAINT. FORD LK	146.69
			YPSILANTI COMMUNITY	LIFT - STATION MAINT. NORTH HY	907.68
			YPSILANTI COMMUNITY	ACCT. #4-085-803600-02	149.94
			YPSILANTI COMMUNITY	ACCT. #4-070-428255-01	74.48
					<u>1,648.18</u>
AP TOTALS:					
Total of 47 Checks:					260,841.78
Less 0 Void Checks:					0.00
Total of 47 Disbursements:					<u>260,841.78</u>

07/07/2025 01:31 PM
User: lstanfield
DB: Ypsilanti-Twp

CHECK REGISTER FOR CHARTER TOWNSHIP OF YPSILANTI
CHECK NUMBERS 124 - 124

Page: 1/1

Credit Cards

Check Date	Check	Vendor Name	Invoice Vendor	Description	Amount
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Bank CARDS COMERICA COMMERCIAL CARD

07/15/2025	124 (E)	COMERICA BANK	STATE OF MICHIGAN*#	3 CEO RENEWALS	30.00
			STATE OF MICHIGAN*#	3 CEO RENEWALS	30.00
			STATE OF MICHIGAN*#	3 CEO RENEWALS	30.00
			HOME DEPOT	RG6 CABLE	97.13
			HOME DEPOT	EXTREME WEATHER COOLING FAN	205.96
			HOME DEPOT	SUPPLIES FOR FM FOR INVESTIGAT	81.64
			MICHIGAN DEPARTMENT OF	REGISTRATION FOR WORKSHOP ADMI	40.00
			WASHTENAW COUNTY BAR ASSOC.	YEARLY DUES	190.00
			WASHTENAW COUNTY BAR ASSOC.	YEARLY DUES	190.00
			MERS	REGISTRATION FOR ANNUAL MERS M	510.00
			GORDON FOOD SERVICE INC.	OPERATING SUPPLIES AND FOOD AN	599.83
			GORDON FOOD SERVICE INC.	Operating supplies and food an	501.50
			GORDON FOOD SERVICE INC.	OPERATING SUPPLIES AND FOOD AN	335.84
			OFFICE DEPOT	Notary Stamps for Fire Departm	113.71
			UNITED STATES POST OFFICE	PASSPORT POSTAGE FOR WEEK MAY	44.00
			UNITED STATES POST OFFICE	PASSPORT POSTAGE FOR WEEK JUNE	33.60
			UNITED STATES POST OFFICE	PASSPORT POSTAGE FOR WEEK JUNE	25.20
			UNITED STATES POST OFFICE	PASSPORT POSTAGE FOR WEEK JUNE	52.40
			RUBBER STAMPS UNLIMITED INC	NOTARY STAMPS (BATIANIS; HARRI	171.80
			GRAND TRAVERSE RESORT AND SPA	LODGING FOR MERS ANNUAL MEETIN	269.00
			TRACTOR SUPPLY COMPANY	COPPER SULFATE AND POND DYE FO	222.57
			TRACTOR SUPPLY COMPANY	COPPER SULFATE AND POND DYE FO	222.55
			ANN ARBOR PCI PARKING	PARKING FOR CHIEF DENSMORE	4.50
			CONCENTRA MEDICAL CENTERS	PRE-EMPLOYMENT DRUG SCREEN FOR	99.00
			GALLS LLC	ORD OFFICER - DC - WORK BOOTS	111.75
			GALLS LLC	ORD OFFICER J G-E WORK BOOTS -	182.89
			GALLS LLC	2025 Summer Ordianace Clothing	842.76
			KROGER	BATTERIES FOR DOORBELL	8.47
			L.A. POLICE GEAR, INC.	SUMMER 2025 ORDINANCE OFFICER	213.60
			STATE OF MI-DEPT. OF HEALTH H	LICENSE CHARGE - VEHICLE UPGRA	25.00
			SUPERIOR WHOLESALE LANDSCAPE	REPLACEMENT SHRUBS CIVIC CENTE	210.00
					5,694.70

CARDS TOTALS:

Total of 1 Checks:

Less 0 Void Checks:

Total of 1 Disbursements:

5,694.70

0.00

5,694.70

TREASURER'S REPORT

The Treasurer's Report will be distributed at the meeting



**YPSILANTI
TOWNSHIP**
— OFFICE OF THE TREASURER —

**MONTHLY TREASURER'S REPORT
STAN ELDRIDGE
JUNE 1, 2025 - JUNE 30, 2025**

<u>Account Name</u>	<u>Beginning Balance</u>	<u>Cash Receipts</u>	<u>Cash Disbursements</u>	<u>Ending Balance</u>
101 - General Fund	10,152,975.95	3,129,408.98	3,256,698.11	10,025,686.82
101 - Payroll	251,606.34	903,649.90	890,370.90	264,885.34
101 - Willow Run Escrow	147,077.43	48.36	0.00	147,125.79
206 - Fire Department	6,665,523.33	233,772.53	425,690.91	6,473,604.95
208 - Parks Fund	13,424.71	44.64	403.70	13,065.65
213 - Roads/Bike Path/Rec/General Fund	2,540,795.38	91,841.91	173,261.77	2,459,375.52
216 - Fire Pension & OPEB Millage Fund	1,303,674.69	51,134.54	1,306,852.78	47,956.45
217 - Fire Special Millage Capital Fund	164,357.63	561.22	0.00	164,918.85
226 - Environmental Services	4,808,240.79	179,893.31	21,081.56	4,967,052.54
230 - Recreation	173,192.46	201,549.54	85,539.53	289,202.47
236 - 14-B District Court	232,986.69	68,024.77	131,704.22	169,307.24
244 - Economic Development	80,163.03	274.23	0.00	80,437.26
249 - Building Department Fund	1,404,904.38	120,183.51	66,435.03	1,458,652.86
250 - LDFA Tax	24,696.47	84.50	0.00	24,780.97
252 - Hydro Station Fund	1,327,015.55	79,486.37	38,498.92	1,368,003.00
266 - Law Enforcement Fund	19,500,507.52	456,794.63	136,157.56	19,821,144.59
284 - Opioid Settlement Fund	51,741.35	176.98	0.00	51,918.33
287 - Nuisance Abatement Fund	44,472.56	6,441.75	0.00	50,914.31
398 - LDFA 2006 Bonds	14,198.54	47.83	0.00	14,246.37
584 - Green Oaks Golf Course	355,218.26	162,844.97	77,529.31	440,533.92
597 - Compost Site	761,888.57	42,068.62	36,600.22	767,356.97
661 - Motor Pool	397,472.56	1,358.94	10,048.02	388,783.48
702 - General Tax Collection	123,481.69	5,592.88	12,492.99	116,581.58
703 - Current Tax Collections	40,512.99	14.33	0.00	40,527.32
707 - Bonds & Escrow/GreenTop	1,426,564.67	14,609.81	13,354.75	1,427,819.73
708 - Fire Withholding Bonds	90,654.15	35,712.97	0.00	126,367.12
GRAND TOTAL	52,097,347.69	5,785,622.02	6,682,720.28	51,200,249.43

ATTORNEY REPORT

GENERAL LEGAL UPDATE

NEW BUSINESS



TO: Charter Township of Ypsilanti Board Trustees
From: Javonna Neel, Accounting Director
Date: July 8, 2025

RE: Authorization to approve the contract with BS&A Software, LLC to upgrade our current BS&A .net software to Cloud-based software pending attorney's review and recommendation of the contract.

The Accounting Department, on behalf of all Township departments using the current BS&A .net software, is requesting authorization to upgrade all modules to Cloud based modules. The current modules include general ledger, accounts payable, purchase order, cash receipting, payroll, building department, assessing, animal license, tax, and delinquent personal property. These are all inter operational systems designed specifically for local government. It offers real-time service and integrates crucial financial and operational functions.

First payment upon execution of the agreement will be \$43,755 pending approval of budget amendment to 101-226-977.005 in 2025 with the remaining \$184,890 budgeted in 2026.

Benefits offered:

- **Automatic updates and maintenance** – eliminate manual tasks
- **Cost savings** – no need to purchase new servers
- **Remote access** – available from anywhere with an internet connection
- **Disaster recovery** – all data is stored on two separate servers in different states with automatic daily backups
- **Unified database** – no need to open multiple tabs or windows within the software
- **Unlimited server space** – No cap on storage
- **Centralized search** – everything in the system can be searched from one location

BS&A will be retiring their .net version at some point in the future as they are transitioning to their Cloud based version. The pricing is on exhibit B of the contract.

Upgrade Modules – Annual Fee	Subtotal	\$103,160
Cloud New Special Assessments– Annual fee	Subtotal	\$3,680
Project Management	Subtotal	\$43,755
Implementation and Training	Subtotal	\$70,225
Total Proposed		\$220,820
Estimated Travel		\$7,825

Upon approval and signing of the agreement BS&A will be able to schedule the Township for the upgrade. This could take anywhere from nine to twelve months depending on availability.

CC: Brenda Stumbo, Supervisor
Debbie Swanson, Clerk
Stan Eldridge, Treasurer
Attorney Winters



Ypsilanti Charter Twp

ERP Software Designed for
Michigan

Account Manager: Matt James



Agenda

- The Evolution of BS&A and our Products
- Q&A



The Evolution of our Product

1986

DOS

Jim Bellefeuil releases DOS, the first iteration of what we know as BS&A Software today.

2008

.NET

BS&A Software releases .NET, replacing Pervasive as it became outdated.

1995-2001

Pervasive

BS&A Software releases a new platform, moving from DOS to Windows using the Pervasive database engine.

2021

Cloud

BS&A Software releases Cloud, the 4th iteration of our software solutions that are utilized throughout Michigan and 19 additional states in the U.S.

Today

BS&A Cloud and You

We recommend considering an upgrade to Cloud to keep up with technology and security enhancements as we continue to create a more advantageous environment for our clients.

What is Cloud?



Automatic Updates & Maintenance

Cloud saves time & effort through automatic updates. Stay up-to-date with the latest software features & security patches from an always modern interface.



High Availability & Reliability

Reliable infrastructure with guaranteed uptime for accessible & operational applications and data.



Enhanced Security

Multi-factor authentication (MFA) reduces unauthorized access risks, strengthening organizations against cyber threats.



Seamless Integration

Efficient collaboration & data sharing across departments & teams.



Cost Savings

No upfront hardware costs, pay-as-you-go pricing, and reduced IT expenses.



Intelligent Monitoring

Software focused on monitoring and mitigating risks, making cloud solutions more secure than on-premise setups.



Scalability

Flexible scaling to meet your requirements without the limitations of on-premise systems.



Accessibility & Mobility

Access BS&A from anywhere with an Internet Connection.



Disaster recovery and data backup

Minimizing data loss risk & ensuring business continuity during disasters or system failures.



Unified Database

.NET leads to data silos, obstructing information flow. Cloud centralizes data, enhancing accuracy & efficiency department-wide.

Investing in Support:

More Choices for How You Receive Support

You love that you can talk live to a person at BS&A, and *also* would love more self-help options.


“I prefer online (web) FAQs to phoning / emailing for questions.”

We are responding with:

- ✓ Customer Portal
- ✓ Knowledge Base
- ✓ In-app Guidance
- ✓ AI Chatbot
- ✓ More Webinars/User Group Meetings

In-App Guidance

Single Season Tax Roll Import

 RUN PROCESS

 RESET OPTIONS



INFORMATION



PROCESS

Single Season Tax Roll Import



A Proof Run will always automatically run first when using this process.

▼ STEP 1: SELECT IMPORT FILE

Import File

★ Not Specified

▼ STEP 2: FILTERING OPTIONS

Target Tax Roll

2024 - MONTMORENCY COUNTY 2024

Unit Options

★

Season

Summer

▼ STEP 4: IMPORT OPTIONS

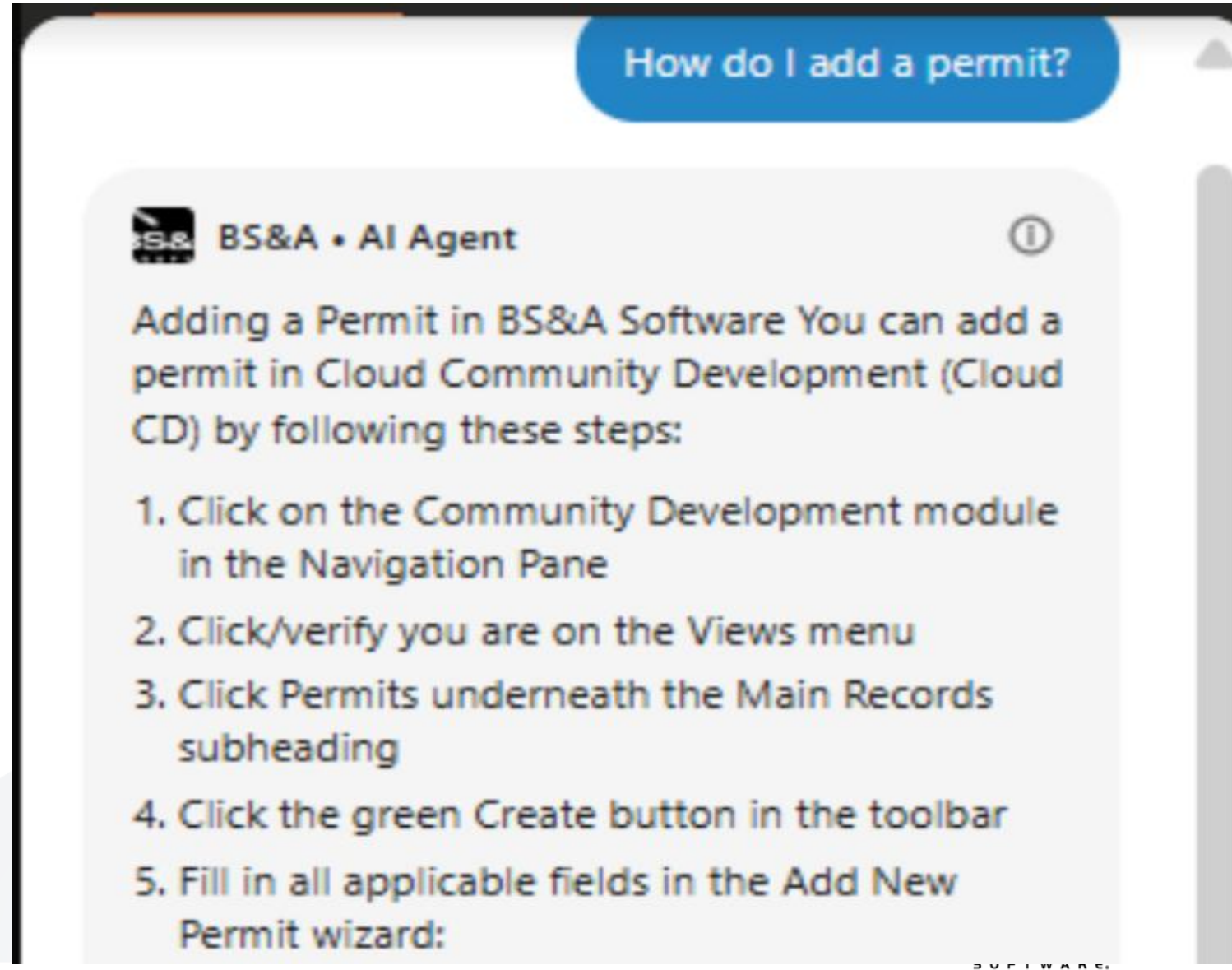
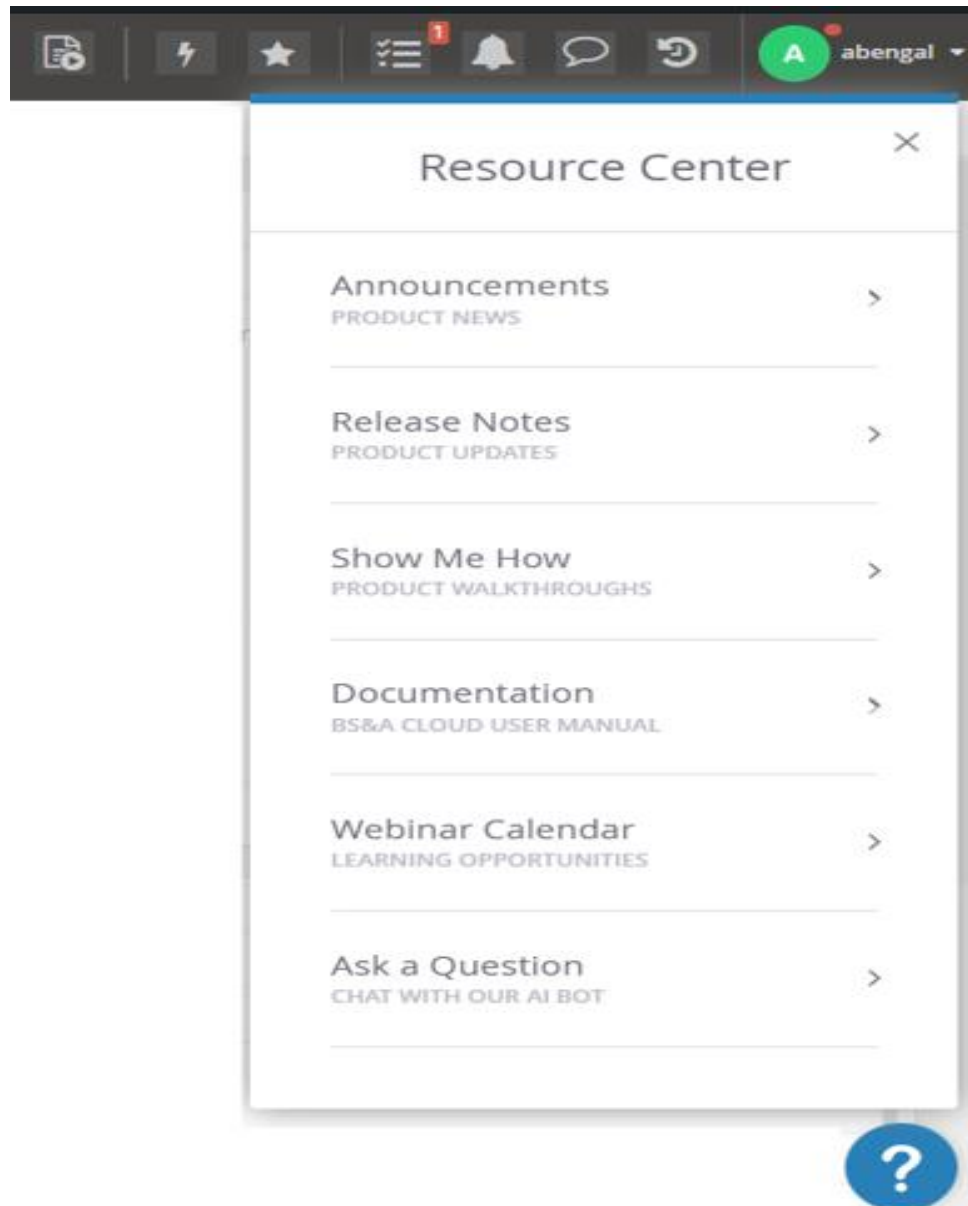
- ☒ Import Values/Adjustments
- ☒ Import Names/Addresses
- ☒ Import Legals
- ☒ Import Taxes
- ☐ Update Existing Parcels Only

Would you like to view a guide on the Single Season Tax Roll Import process?

Yes

No

AI Chat Bot



Webinars / User Groups

Mon	Tue	Wed	Thu	Fri	Sat	Sun
1	2	3	4 Training – Cloud Basics Webinar	5	6	7
8	9	10	11	12	13	14
15	16	17 Training – Cloud Advanced Webinar	18 Governmental Accounting Webinar – .NET Governmental Accounting Webinar – Cloud	19	20	21
22	23 Cloud Business Licensing Renewal – Cloud	24 Training – Cloud Basics Webinar	25 Michigan-Based Financial Management User Group Webinar – Cloud	26	27	28
29	30 Michigan-Based Financial Management User Group Webinar – .NET	1 Michigan-Based Financial Management User Group Webinar – Cloud	2 Payroll: 941 Balancing and Reporting – .NET Webinar Payroll: 941 Balancing and Reporting – Cloud Webinar	3	4	5



Differences Between .NET & Cloud



Cloud Comparison (Receipt Entry)

Before

The screenshot displays the BS&A Receipt Entry software interface. The top menu bar includes File, View, Navigation, Data Entry, Tools, Reports, BS&A Applications, and Help. Below the menu is a toolbar with icons for Add, Edit, Audit, Options, New Journal Entry, No Sale, Attach, and Search Linked Apps. The main window is divided into several sections:

- Left Sidebar:** Contains a list of application areas (Counter Receipt Entry, Department Receipt Entry, Quick Receipt Entry, Tables: Receipts, Program Setup), a Quick Search section with fields for Receipt #, Receipt Amount, and Receipt Item Amount, and a list of Open Receipts (21 Open - \$1,540.17) and Unposted Journal Entries.
- Main Form:** Includes fields for Receipt ID, Address, Receipt (Next Available), Post Date (04/15/2025), Description/Notes, Cashier (NORA), Status (Open), and Bank. Below these is a table for Receipt Item with columns for Reference, Description, and Amount. A message in the table says "double-click or begin typing here to add a new row".
- Bottom Section:** Includes a Creation Source (Quick Receipt), Creation ID (19052c47-d81d-4e06-9100-c547c50a4d8), Notes/User Profile, and a summary of Totals (Total: \$0.00, Tendered: \$0.00, Change: \$0.00, Tax: \$0.00). It also has buttons for Adding New Receipt, Help, Video, Save, and Cancel.

The bottom status bar shows Posting Date: 04/15/2025, Interest Date: 04/15/2025, and a small icon.

Cloud Comparison

After

PAID BY INFORMATION

Barcode Entry

Received of Name

SMITH, TOMMY

Q

Received of Address

Q

Not Specified

Email Receipt

Email Address

tsmith@bsasoftware.com

Email Print Option

Email and Print

GENERAL INFORMATION

Post Date

★ 04/22/2025

Interest Date

04/22/2025

Description

Batch

Q

Workstation Code

Default

DETAILS 1 1

NOTES

DETAIL INFORMATION

ADD NEW RECORD

GROUP PAYMENT

SEARCH MODULES

TYPE	REFERENCE	AMOUNT		
STAX	051-025-399-15	728.65	DIST	
<double-click or begin typing here to add a new row>				
		Total: 728.65		

1

1 - 1 of 1 items

TENDER INFORMATION

ADD PAYMENT

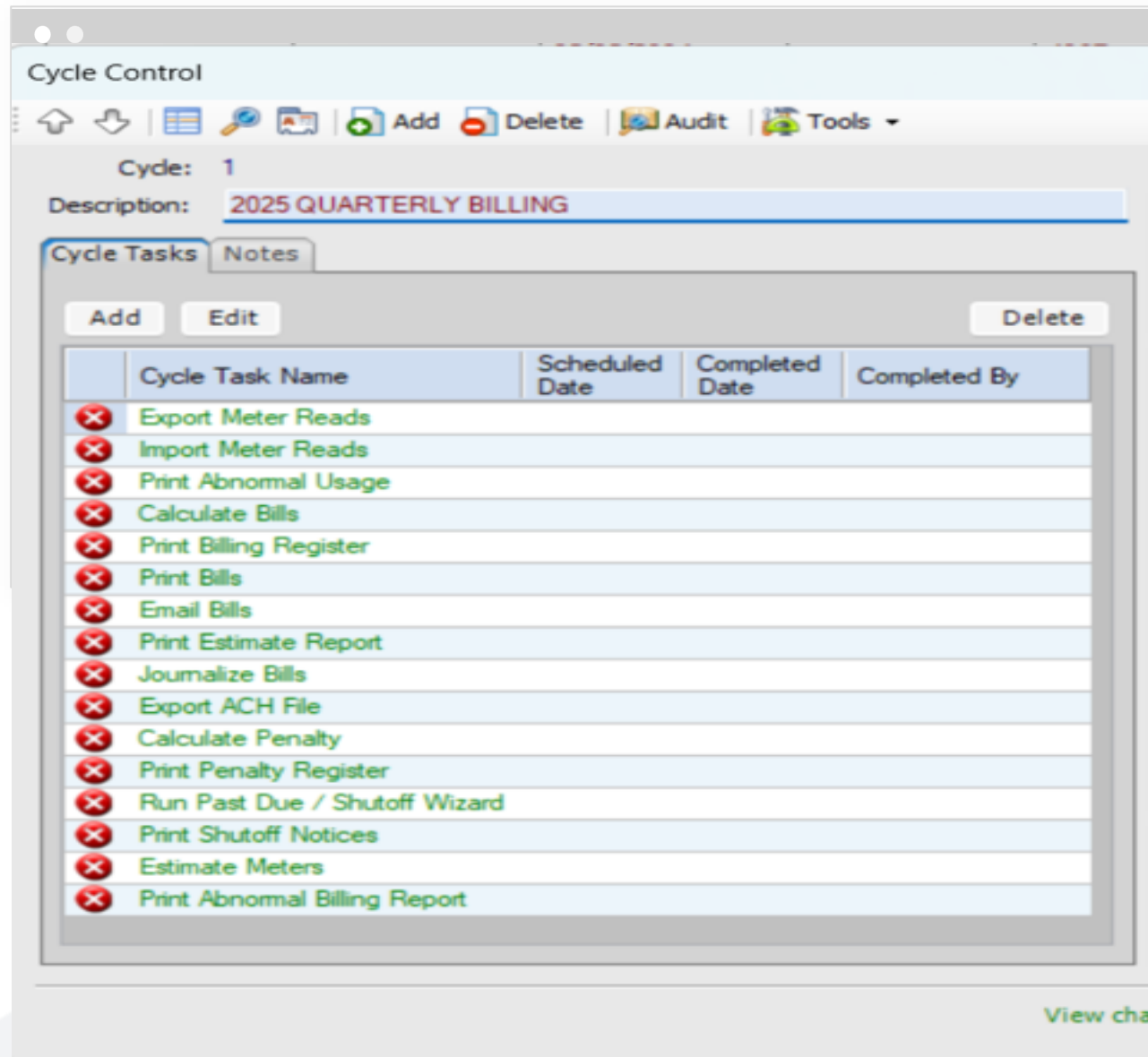
TND TYPE	CK #/REF #	AMOUNT		
K	513	728.65		
<double-click or begin typing here to add a new row>				
		Total: 728.65		
		Change: 0.00		

1

1 - 1 of 1 items

Cloud Comparison (UB Cycle Manager)

Before



Cloud Comparison

After

ADD NEW RECORD

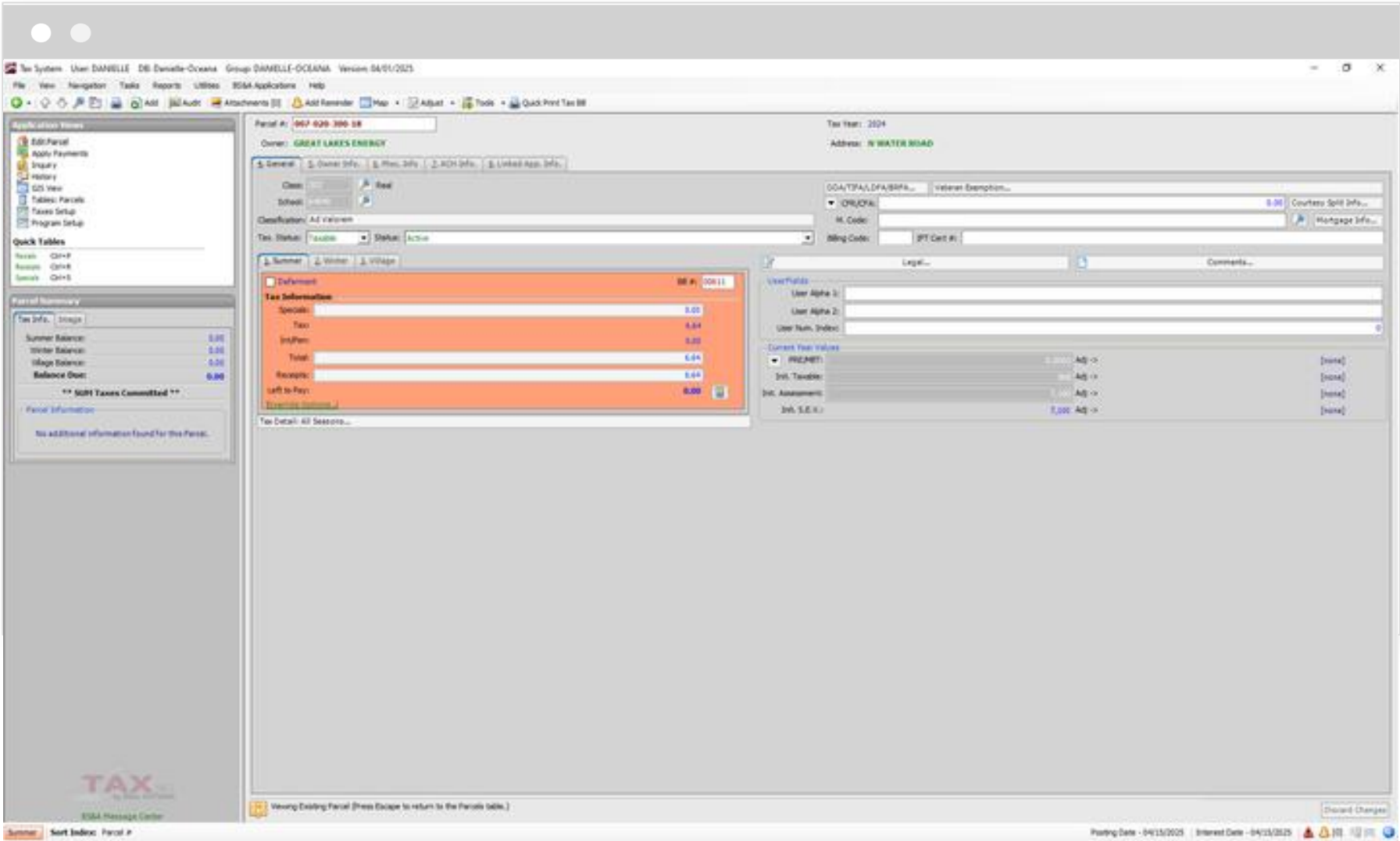
TASK	SCHEDULED	COMPLETED	COMPLETED BY			
Export Meter Reads		08/31/2024	TIM	▶ RUN	DETAILS...	✕
Import Meter Reads (Legacy)		09/02/2024	TIM	▶ RUN	DETAILS...	✕
Meter Read Manager		09/01/2024	DWilliams	▶ RUN	DETAILS...	✕
Print Abnormal Usage				▶ RUN	DETAILS...	✕
Print Consumption Report				▶ RUN	DETAILS...	✕
Calculate Bills				▶ RUN	DETAILS...	✕
Print Billing Register				▶ RUN	DETAILS...	✕
Print Bills				▶ RUN	DETAILS...	✕
Print Group Bills				▶ RUN	DETAILS...	✕
Export Bills to Printing Company				▶ RUN	DETAILS...	✕
Email Bills				▶ RUN	DETAILS...	✕
Journalize Bills				▶ RUN	DETAILS...	✕
Process Internal Payments				▶ RUN	DETAILS...	✕
Export ACH File				▶ RUN	DETAILS...	✕
Apply Penalty				▶ RUN	DETAILS...	✕
Print Penalty Register				▶ RUN	DETAILS...	✕
Past Due Notices				▶ RUN	DETAILS...	✕
Print & Email Shutoff Notices				▶ RUN	DETAILS...	✕
Generate Shut off Notice, Fees, & Work Orders				▶ RUN	DETAILS...	✕

1

1 - 19 of 19 items

Cloud Comparison (Parcel View)

Before



Cloud Comparison

After

Parcels » 77 051 99 0114 000 | 8354 Cedar | Bryan Allen

CREATE

DISCARD

SAVE

🔍

🔄

🚨

🔒

🖨

ADJUST ▾

📍

🔧

🏠

📝

461 / 12,452

◀ ▶ ☰ 🔍

INFORMATION

LINKED MODULE INFO 2

TAX HISTORY

COMMENTS 0

ATTACHMENTS 5

📄

PARCEL

77 051 99 0114 000 | 8354 Cedar | Bryan Allen

BALANCE DUE
5,835.68

Parcel

77 051 99 0114 000 ▾

ASSG UB

Tax Roll

2022 - Customer 2022 ▾

Owner Name

Bryan Allen

Property Address

8354 Cedar
Big Bay, MI 49808 ▾

Barcode Search

GENERAL

OWNER/TAXPAYER

MISCELLANEOUS

ACH

▼ TAX INFORMATION

Deferment

SUMMER ▾

WINTER ▾

Bill Number

QUICK PRINT TAX BILL

QUICK PRINT TAX BILL

Specials

0.00

357.67

Tax

3,373.84

2,105.75

Interest/Penalty

203.65

52.44

Total

3,677.49

2,158.19

Receipts

0.00

0.00

Left to Pay

3,677.49

2,158.19

PAY...

PAY...

PAY BALANCE ACROSS ALL SEASONS...

TAX DETAIL: ALL SEASONS

▼ DDA/TIFA/LDFA/BRFA INFORMATION

Parcel Exists for DDA/TIFA Reference Only

ADD NEW RECORD

▼ GENERAL

Property Class

401 - RESIDENTIAL-IMPROVED ▾

School

00704 - 00704 ▾

Classification

Ad Valorem

Taxable Status

Taxable ▾

Property Status

Active ▾

▼ CURRENT YEAR VALUES

PRE/MBT ▾

Summer

Winter

Taxable

100.0000

100.0000

144,756

144,756

Assessed

204,100

204,100

SEV

204,100

204,100

Mortgage Code

Do Not Update Mortgage Code

Legal Description

Not Specified

Billing Code

IFT Certificate #

▼ CFR

CFR/CFR

0.00



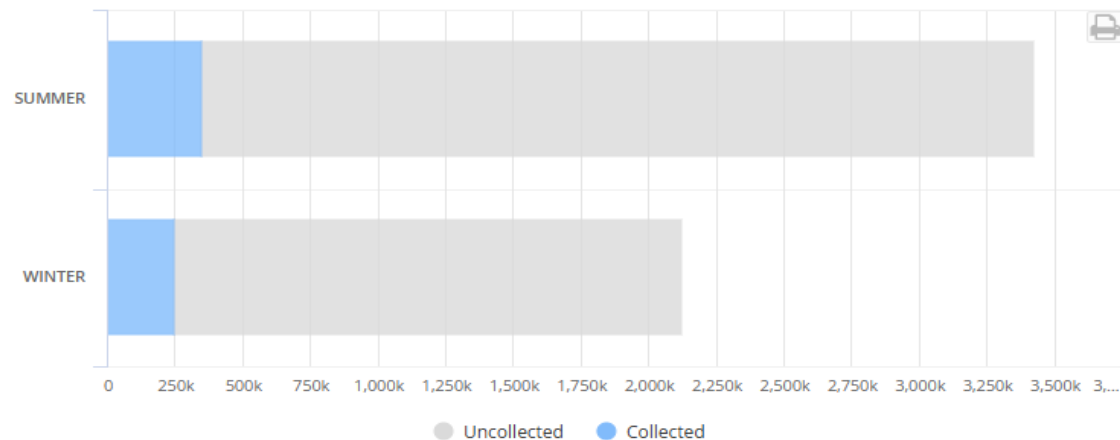
Differences Between .NET & Cloud

- Dashboards
- Single, Cohesive Database
- Central Person Record
- Email Receipts
- Quick Tax Disbursements Integrated with AP

DASHBOARD: Treasurer

2022 TAX COLLECTION STATS

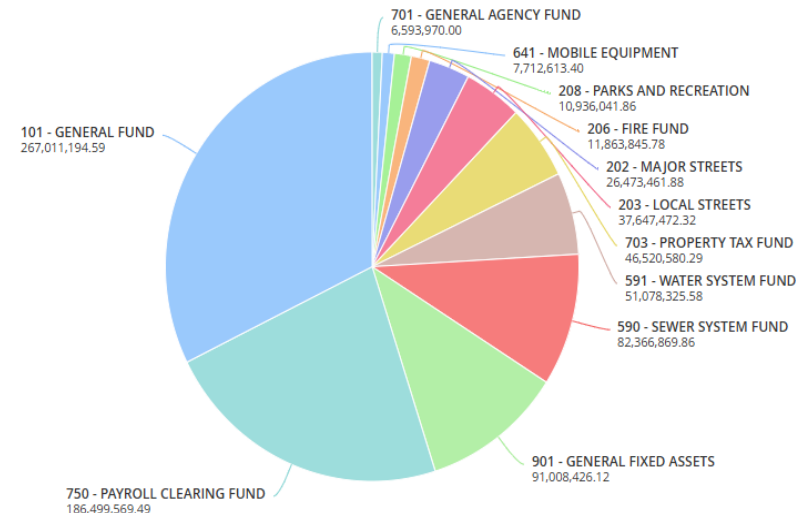
PRINT



Summer Taxes Collected 10.28%
Winter Taxes Collected 11.58%

CASH BALANCE BY FUND

Total Balances



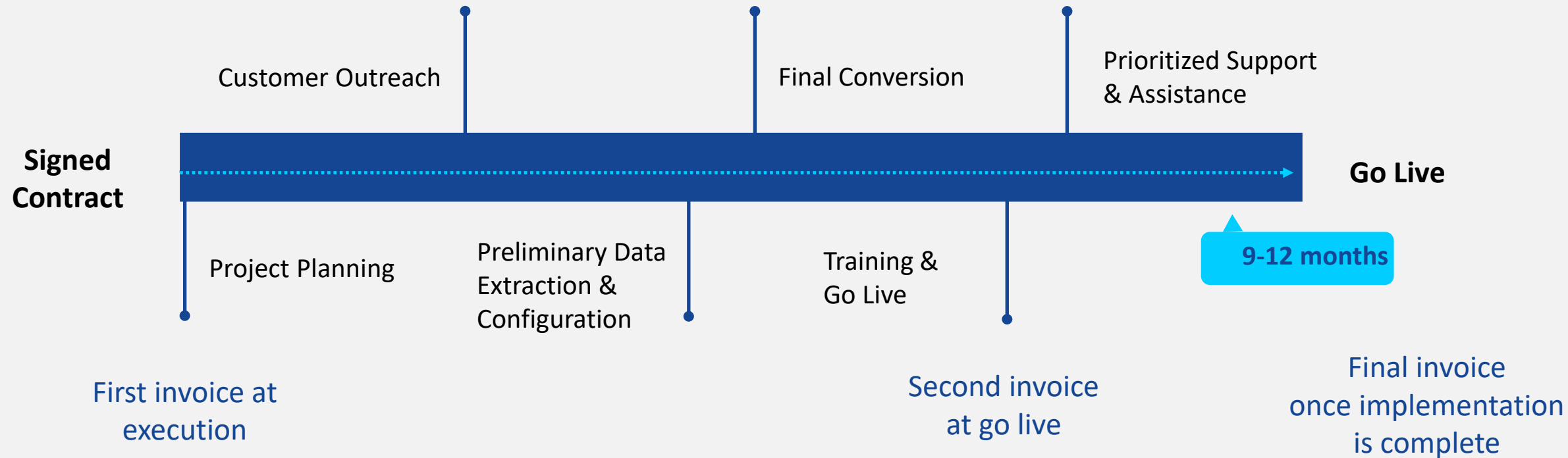
Cloud Adoption Statistics



600+

The number of customers live or in progress

A Path Forward: Standard Upgrade Timeframe





Questions?



Proposal for:
Ypsilanti Charter Township, Washtenaw County MI
June 30, 2025
Quoted by: Matthew James

Software and Services for BS&A Cloud



Thank you for the opportunity to quote our software and services.

At BS&A, we are focused on delivering unparalleled service, solutions, support, and customer satisfaction. You'll see this in our literature, but it's not just a marketing strategy... it's a mindset deeply embedded in our DNA. Our goal is to provide such remarkable customer service that our customers feel compelled to remark about it.

*We are extremely proud of the many long-term customer relationships we have built. Our success is directly correlated with putting the customer first and consistently choosing to **listen**. Delivering unparalleled customer service is the foundation of our company.*

Cost Summary

Software is licensed for use only by municipality identified on the cover page. If used for additional entities or agencies, please contact BS&A for appropriate pricing. Prices subject to change if the actual count is significantly different than the estimated count. Module fees are charged annually and include unlimited support.

Upgrade - Cloud Modules – Annual Fee

Financial Management		
GL-General Ledger		\$11,865.00
AP-Account Payable		\$9,760.00
PO-Purchase Order		\$9,575.00
CR-Cash Receipting		\$10,695.00
	Total	\$41,895.00
Personnel Management		
PR-Payroll		\$16,130.00
	Total	\$16,130.00
Community Development		
BD-Building Department		\$19,205.00
	Total	\$19,205.00
Property		
ASG-Assessing		\$10,900.00
AL-Animal License		\$5,630.00
TX-Tax		\$7,045.00
DPP-Delinquent Personal Property		\$2,355.00
	Total	\$25,930.00
	Subtotal	\$103,160.00

New Purchase - Cloud Modules - Annual Fee

Property

SPAS-Special Assessments		\$3,680.00
	Total	\$3,680.00
	Subtotal	\$3,680.00

Project Management and Implementation Planning

Services include:

- Analyzing customer processes to ensure all critical components are addressed.
- Creating and managing the project schedule in accordance with the customer's existing processes and needs.
- Planning and scheduling training around any planned process changes included in the project plan.
- Modifying the project schedule as needed to accommodate any changes to the scope and requirements of the project that are discovered.
- Providing a central contact between the customer's project leaders, developers, trainers, IT staff, conversion staff, and other resources required throughout the transition period.
- Installing the software and providing IT consultation for network, server, and workstation configuration and requirements.
- Reviewing and addressing the specifications for needed customizations to meet customer needs (when applicable).

Total \$43,755.00

Implementation and Training

- \$1,325/day
- Days quoted are estimates; you are billed for actual days used
- Training days quoted/billed in full day increments only

Services include:

- Setting up users and user security rights for each application
- Performing final process and procedure review
- Configuring custom settings in each application to fit the needs of the customer
- Setting up application integration and workflow methods
- Onsite verification of converted data for balancing and auditing purposes
- Training and Go-Live

Setup Days

ITS Setup - FM	Setup Days: 2	\$2,650.00
ITS Setup - HRIS	Setup Days: 2	\$2,650.00
ITS Setup - CD	Setup Days: 2	\$2,650.00
ITS Setup - Property	Setup Days: 4	\$5,300.00
Total Setup Days: 10		Subtotal: \$13,250.00

Training Days

ITS Training - FM	Training Days: 14	\$18,550.00
ITS Training - HRIS	Training Days: 7	\$9,275.00
ITS Training - CD	Training Days: 15	\$19,875.00
ITS Training - Property	Training Days: 7	\$9,275.00
Total Training Days: 43		Subtotal: \$56,975.00
Total Days: 53		Total: \$70,225.00

Cost Totals

Upgrade Modules – Annual Fee	Subtotal	\$103,160.00
Cloud New Purchase – Annual Fee	Subtotal	\$3,680.00
Project Management	Subtotal	\$43,755.00
Implementation and Training	Subtotal	\$70,225.00
Total Proposed		\$220,820.00
Estimated Travel		\$7,825

Estimated Travel Expenses are outlined in this proposal. The final invoice will reflect actual expenses following the completion of all training activities based on the Federal Guidelines described below.

\$160/\$185/\$225 per day hotel, varies by state
\$90 per day car rental
\$70 per day meals
\$730 per trip airfare/related expenses
\$0.70/mile round trip for drive distance

Payment Schedule

1st Payment: **\$43,755** to be invoiced upon execution of this agreement.

2nd Payment: **\$106,840** to be invoiced at activation of customer’s site.

3rd Payment: **\$78,050** to be invoiced upon completion of training.

BS&A
CUSTOMER ORDER FORM

This Customer Order Form (this “**Order**”) is entered into as of the “**Effective Date**” identified below between BS&A Software, LLC, a Delaware limited liability company with offices located at 14965 Abbey Lane, Bath, MI 48808 (“**BS&A**”) and the “**Customer**” identified below. Capitalized terms used but not defined in this Order have the meanings given them elsewhere in the Agreement (as defined below). BS&A and Customer may be referred to herein collectively as the “**Parties**” or individually as a “**Party**”. The Parties hereby agree as follows:

Customer Name: Ypsilanti Charter Township, Washtenaw County MI	Sponsor Contact:
Billing Address:	Sponsor Phone:
Accounts Payable Email:	Sponsor Email:

Platform and Fee Information

Effective Date:	
Platform Description: Those modules and feature packs of BS&A’s proprietary hosted enterprise resource planning service for managing local government functions that are identified in the Pricing Sheet.	
“Usage Limitations”: <input type="checkbox"/> <i>Number of Authorized Users:</i> [INSERT # OF SEATS] <input type="checkbox"/> <i>Other:</i> [INSERT OTHER USAGE LIMITATIONS, IF ANY]	
“Initial Subscription Period”: [One (1) year]	Subscription Fees: \$106,840 payable [annually].
Professional Services (if any): \$121,805	Service Fees (if any):
Other Customer Terms:	

The Customer Agreement (the “**Agreement**”), made and entered into as of the Effective Date between BS&A and Customer, includes and incorporates: (i) the above Order; (ii) any Orders previously or subsequently entered into by the Parties; and (iii) the Customer Terms and Conditions, which are attached to this Order (the “**Terms and Conditions**”); and (iv) the Pricing Sheet attached to this Order (the “**Pricing Sheet**”).

BS&A SOFTWARE, LLC

YPSILANTI CHARTER TOWNSHIP, WASHTENAW COUNTY, MI

Name: _____
Title: _____

Name: _____
Title: _____

Name: _____
Title: _____

EXHIBIT A
CUSTOMER TERMS AND CONDITIONS

The Parties agree as follows:

1. Definitions.

1.1 **"Authorized User"** means Customer's employees, consultants, contractors, and agents: (i) who are authorized by Customer to access and use the Platform under this Agreement; and (ii) for whom access to the Platform has been purchased hereunder.

1.2 **"BS&A IP"** means the Platform and any and all intellectual property provided to Customer or any Authorized User in connection with the foregoing. For the avoidance of doubt, BS&A IP includes Usage Data and any information, data, or other content derived from BS&A's provision of the Platform but does not include Customer Data.

1.3 **"Business Contact Data"** means Personal Information that relates to BS&A's relationship with Customer, including, by way of example and without limitation, the names and contact information of Authorized Users and any other data BS&A collects for the purpose of managing its relationship with Customer, identity verification, or as otherwise required by applicable laws, rules, or regulations.

1.4 **"Customer Data"** means information, data, and other content, in any form or medium, that is submitted, posted, or otherwise transmitted by or on behalf of Customer or an Authorized User through the Platform, including Business Contact Data; provided that, for purposes of clarity, Customer Data as defined herein does not include Business Contact Data or Usage Data.

1.5 **"Documentation"** means Company's end user documentation relating to the Platform, including any user guides.

1.6 **"Harmful Code"** means any software, hardware, or other technology, device, or means, including any virus, worm, malware, or other malicious computer code, the purpose or effect of which is to permit unauthorized access to, or to destroy, disrupt, disable, distort, or otherwise harm or impede in any manner any (i) computer, software, firmware, hardware, system, or network; or (ii) any application or function of any of the foregoing or the security, integrity, confidentiality, or use of any data processed thereby.

1.7 **"Order"** means: (i) a purchase order, order form, or other ordering document entered into by the Parties that incorporates this Agreement by reference; or (ii) if Customer registered for the Platform through BS&A's online ordering process, the results of such online ordering process.

1.8 **"Personal Information"** means any information that, individually or in combination, does or can identify a specific individual or by or from which a specific individual may be identified, contacted, or located, including without limitation all data considered "personal data", "personally identifiable information", or something similar under applicable laws, rules, or regulations relating to data privacy.

1.9 **"Platform"** has the meaning set forth on the Order.

1.10 **"Professional Services"** means training, migration, implementation, integration, or other professional services that are provided to Customer in connection with its use of the Platform hereunder.

1.11 **"Subscription Period"** means the time period identified on the Order during which Customer's Authorized Users may access and use the Platform.

1.12 **"Third-Party Products"** means any third-party products provided with, integrated with, or incorporated into the Platform.

1.13 **"Usage Data"** means usage data collected and processed by BS&A in connection with Customer's use of the Platform, including without limitation test configuration metadata, activity logs, and data used to optimize and maintain performance of the Platform, and to investigate and prevent system abuse. For purposes of clarity, Customer Data is not Usage Data and Usage Data does not contain Personal Information or any other Customer Data.

1.14 **"Usage Limitations"** means the usage limitations set forth in this Agreement and the Order, including without limitation any limitations on the number of Authorized Users (if any), and the applicable product, pricing, and support tiers agreed-upon by the Parties.

2. Access and Use.

2.1 Provision of Access. Subject to and conditioned on Customer's compliance with the terms and conditions of this Agreement, including without limitation the Usage Limitations, Customer may, solely through its Authorized Users, access and use the Platform during the Subscription Period on a non-exclusive, non-transferable (except in compliance with Section 15.9), and non-sublicensable basis. Such use is limited to Customer's internal business purposes and the features and functionalities specified in the Order. Each Authorized User must have its own unique account on the Platform and Authorized Users may not share their account credentials with one another or any third party. Customer will be responsible for all of the acts and omissions of its Authorized Users in connection with this Agreement and for all use of Authorized Users' accounts.

2.2 Documentation License. Subject to and conditioned on Customer's compliance with the terms and conditions of this Agreement, Company hereby grants to Customer a non-exclusive, non-transferable (except in compliance with Section 15.9), and non-sublicensable license to use the Documentation during the Subscription Period solely for Customer's internal business purposes in connection with its use of the Platform.

2.3 Use Restrictions. Customer shall not use the Platform for any purposes beyond the scope of the access granted in this Agreement. Customer shall not at any time, directly or indirectly, and shall not permit any Authorized Users to: (i) copy, modify, or create derivative works of any BS&A IP, whether in whole or in part; (ii) rent, lease, lend, sell, license, sublicense, assign, distribute, publish, transfer, or otherwise make available the Platform or Documentation to any third party; (iii) reverse engineer, disassemble, decompile, decode, adapt, or otherwise attempt to derive or gain access to any software component of the Platform, in whole or in part; (iv) remove any proprietary notices from any BS&A IP; (v) use any BS&A IP in any manner or for any purpose that infringes, misappropriates, or otherwise violates any intellectual property right or other right of any person, or that violates any applicable law; (vi) access or use any BS&A IP for purposes of competitive analysis of BS&A or the Platform, the development, provision, or use of a competing software service or product, or any other purpose that is to BS&A's detriment or commercial disadvantage; (vii) bypass or breach any security device or protection used by the Platform or access or use the Platform other than by an Authorized User through the use of valid access credentials; (viii) input, upload, transmit, or otherwise provide to or through the Platform any information or materials, including Customer Data, that are unlawful or injurious or that infringe or otherwise violate any third party's intellectual property or other rights, or that contain, transmit, or activate any Harmful Code; or (ix) use any BS&A IP for any activity where use or failure of the BS&A IP could lead to death, personal injury, or environmental damage, including life support systems, emergency services, nuclear facilities, autonomous vehicles, or air traffic control.

2.4 Reservation of Rights. BS&A reserves all rights not expressly granted to Customer in this Agreement. Except for the limited rights and licenses expressly granted under this Agreement, nothing in this Agreement grants, by implication, waiver, estoppel, or otherwise, to Customer or any third party any intellectual property rights or other right, title, or interest in or to the BS&A IP.

2.5 Suspension. Notwithstanding anything to the contrary in this Agreement, BS&A may temporarily suspend Customer's and any Authorized User's access to any portion or all of the Platform if: (i) BS&A reasonably determines that (a) there is a threat or attack on any of the BS&A IP; (b) Customer's or any Authorized User's use of the BS&A IP disrupts or poses a security risk to the BS&A IP or to any other customer or vendor of BS&A; (c) Customer, or any Authorized User, is using the BS&A IP for fraudulent or illegal activities; (d) subject to applicable law, Customer has ceased to continue its business in the ordinary course, made an assignment for the benefit of creditors or similar disposition of its assets, or become the subject of any bankruptcy, reorganization, liquidation, dissolution, or similar proceeding; (e) BS&A's provision of the Platform to Customer or any Authorized User is prohibited by applicable law; or (f) any Customer Data submitted, posted, or otherwise transmitted by or on behalf of Customer or an Authorized User through the Platform may infringe or otherwise violate any third party's intellectual property or other rights; (ii) any vendor of BS&A has suspended or terminated BS&A's access to or use of any Third-Party Products required to enable Customer to access the Platform; or (iii) in accordance with Section 7.1 (any such suspension described in subclauses (i), (ii), or (iii), a "**Service Suspension**"). BS&A shall use commercially reasonable efforts to provide written notice of any Service Suspension to Customer and to provide updates regarding resumption of access to the Platform following any Service Suspension. BS&A shall use commercially reasonable efforts to resume providing access to the Platform as soon as reasonably possible after the event giving rise to the Service Suspension is cured. BS&A will have no liability for any damage, liabilities, losses (including any loss of data or profits), or any other consequences that Customer or any Authorized User may incur as a result of a Service Suspension.

2.6 Business Contact Data and Usage Data. Notwithstanding anything to the contrary in this Agreement,

BS&A may process Business Contact Data: (i) to manage BS&A's relationship with Customer; (ii) to carry out BS&A's core business operations, such as, by way of example and without limitation, accounting, audits, tax preparation and for filing and compliance purposes; (iii) to monitor, investigate, prevent and detect fraud, security incidents and other misuse of the Platform, and to prevent harm to BS&A, Customer, and BS&A's other customers; (iv) for identity verification purposes; and (v) to comply with applicable laws, rules, and regulations relating to the processing and retention of Personal Information to which BS&A may be subject. BS&A may process Usage Data for any lawful purpose, including to monitor, maintain, and optimize the Platform. '

3. Customer Responsibilities.

3.1 General. Customer is responsible and liable for all uses of the Platform and Documentation resulting from access provided by Customer, directly or indirectly, whether such access or use is permitted by or in violation of this Agreement. Without limiting the generality of the foregoing, Customer is responsible for all acts and omissions of Authorized Users, and any act or omission by an Authorized User that would constitute a breach of this Agreement if taken by Customer will be deemed a breach of this Agreement by Customer. Customer shall use reasonable efforts to make all Authorized Users aware of this Agreement's provisions as applicable to such Authorized User's use of the Platform and shall cause Authorized Users to comply with such provisions.

3.2 Third-Party Products. BS&A may from time to time make Third-Party Products available to Customer or BS&A may allow for certain Third-Party Products to be integrated with the Platform to allow for the transmission of Customer Data from such Third-Party Products into the Platform. For purposes of this Agreement, such Third-Party Products are subject to their own terms and conditions. BS&A is not responsible for the operation of any Third-Party Products and makes no representations or warranties of any kind with respect to Third-Party Products or their respective providers. If Customer does not agree to abide by the applicable terms for any such Third-Party Products, then Customer should not install or use such Third-Party Products. By authorizing BS&A to transmit Customer Data from Third-Party Products into the Platform, Customer represents and warrants to BS&A that it has all right, power, and authority to provide such authorization.

3.3 Customer Control and Responsibility. Customer has and will retain sole responsibility for: (i) all Customer Data, including its content and use; (ii) all information, instructions, and materials provided by or on behalf of Customer or any Authorized User in connection with the Platform; (iii) Customer's information technology infrastructure, including computers, software, databases, electronic systems (including database management systems), and networks, whether operated directly by Customer or through the use of third-party platforms or service providers ("**Customer Systems**"); (iv) the security and use of Customer's and its Authorized Users' access credentials; and (v) all access to and use of the Platform directly or indirectly by or through the Customer Systems or its or its Authorized Users' access credentials, with or without Customer's knowledge or consent, including all results obtained from, and all conclusions, decisions, and actions based on, such access or use. For purposes of clarity, Customer Systems do not include BS&A's information technology infrastructure, including computers, software, databases, electronic systems (including database management systems), and networks operated directly by BS&A and its third-party service providers.

4. Support. Subject to and conditioned on Customer's compliance with the terms and conditions of this Agreement, including payment of applicable Fees, BS&A will use commercially reasonable efforts to provide Customer with basic customer support via BS&A's standard support channels during BS&A's normal business hours.

5. Professional Services. BS&A will perform Professional Services as described in an Order. Customer will provide BS&A all reasonable cooperation required for BS&A to perform the Professional Services, including without limitation timely access to any reasonably required Customer materials, information, or personnel. Subject to any limitations identified in an Order, Customer will reimburse BS&A's reasonable travel and lodging expenses incurred in providing Professional Services. To the extent the Professional Services result in any work product of any kind or character ("**Work Product**"), all such Work Product will remain owned solely and exclusively by BS&A and, to the extent any such Work Product consists of enhancements, improvements, or other modifications to the Platform, such Work Product may be used by Customer solely in connection with Customer's authorized use of the Platform under this Agreement.

6. Insurance. During the Subscription Period, BS&A shall procure and maintain appropriate insurance policies with coverage limits that are commensurate with industry standards and sufficient to protect against potential risks associated with this Agreement. The insurance policies shall be obtained from reputable and financially sound insurance providers, and BS&A agrees to provide proof of such insurance upon request by Customer.

7. Fees and Taxes.

7.1 Fees. The Platform may be provided for a fee or other charge. Customer shall pay BS&A the fees (“Fees”) identified in the Order without offset or deduction at the cadence identified in the Order (e.g., monthly or annually). BS&A may increase the Fees annually, provided that BS&A will provide Customer at least thirty (30) days’ notice of such increase prior to the end of the then-current Term. The amount of the Fee increase will be in BS&A’s sole discretion, provided that Customer agrees that the increase may be at least the greater of: (i) five percent (5%); or (ii) the annual increase in the relevant Consumer Price Index for all Urban Consumers published by the Bureau of Labor Statistics for the then-current calendar year, in each case as compared to the Fees applicable during then-current Term, as applicable. Fees paid by Customer are non-refundable. Customer shall make all payments hereunder in US dollars by ACH or via another reasonable method chosen by BS&A, to such account as BS&A may specify in writing from time to time, or by another mutually agreed-upon payment method. If Customer pays via invoice, Customer will pay the invoiced amount within thirty (30) calendar days of the invoice date. If Customer fails to make any payment when due, and Customer has not notified BS&A in writing within ten (10) days of the payment becoming due and payable that the payment is subject to a good faith dispute, without limiting BS&A’s other rights and remedies, and to the fullest extent permissible under applicable law: (i) BS&A may charge interest on the undisputed past due amount at the rate of 1.5% per month, calculated daily and compounded monthly or, if lower, the highest rate permitted under applicable law; (ii) Customer shall reimburse BS&A for all reasonable costs incurred by BS&A in collecting any late payments or interest, including attorneys’ fees, court costs, and collection agency fees; and (iii) if such failure continues for ten (10) days or more, BS&A may suspend Customer’s and its Authorized Users’ access to all or any part of the Platform until such amounts are paid in full.

7.2 Taxes. All Fees and other amounts payable by Customer under this Agreement are exclusive of taxes and similar assessments. Customer is responsible for all sales, use, and excise taxes, and any other similar taxes, duties, and charges of any kind imposed by any federal, state, or local governmental or regulatory authority on any amounts payable by Customer hereunder, other than any taxes imposed on BS&A’s income.

8. Confidential Information.

8.1 Definition. From time to time during the Subscription Period, either Party may disclose or make available to the other Party information about its business affairs, products, confidential intellectual property, trade secrets, third-party confidential information, and other sensitive or proprietary information, whether orally or in written, electronic, or other form or media that: (i) is marked, designated or otherwise identified as “confidential” or something similar at the time of disclosure or within a reasonable period of time thereafter; or (ii) would be considered confidential by a reasonable person given the nature of the information or the circumstances of its disclosure (collectively, “**Confidential Information**”). Except for Personal Information, Confidential Information does not include information that, at the time of disclosure is: (a) in the public domain; (b) known to the receiving Party at the time of disclosure; (c) rightfully obtained by the receiving Party on a non-confidential basis from a third party; or (d) independently developed by the receiving Party without use of, reference to, or reliance upon the disclosing Party’s Confidential Information.

8.2 Duty. The receiving Party shall not disclose the disclosing Party’s Confidential Information to any person or entity, except to the receiving Party’s employees, contractors, and agents who have a need to know the Confidential Information for the receiving Party to exercise its rights or perform its obligations hereunder (“**Representatives**”). The receiving Party will be responsible for all the acts and omissions of its Representatives as they relate to Confidential Information hereunder. Notwithstanding the foregoing, each Party may disclose Confidential Information to the limited extent required (i) in order to comply with the order of a court or other governmental body, or as otherwise necessary to comply with applicable law, provided that the Party making the disclosure pursuant to the order shall first have given written notice to the other Party and made a reasonable effort to obtain a protective order; or (ii) to establish a Party’s rights under this Agreement, including to make required court filings. Further, notwithstanding the foregoing, each Party may disclose the terms and existence of this Agreement to its actual or potential investors, debtholders, acquirers, or merger partners under customary confidentiality terms.

8.3 Return of Materials; Effects of Termination/Expiration. On the expiration or termination of the Agreement, the receiving Party shall promptly return to the disclosing Party all copies, whether in written, electronic, or other form or media, of the disclosing Party’s Confidential Information, or destroy all such copies and certify in writing to the disclosing Party that such Confidential Information has been destroyed. Each Party’s obligations of non-use and non-disclosure with regard to Confidential Information are effective as of the Effective Date and will expire three (3) years from the date of termination or expiration of this Agreement; provided, however, with respect to any Confidential Information that constitutes a trade secret (as determined under applicable law), such obligations of non-disclosure will survive the termination or expiration of this Agreement for as long as such Confidential Information remains subject to trade secret protection under applicable law.

9. Data Security and Processing of Personal Information.

9.1 Customer Data. Customer hereby grants to BS&A a non-exclusive, royalty-free, worldwide license to reproduce, distribute, and otherwise use and display the Customer Data and perform all acts with respect to the Customer Data as may be necessary for BS&A to provide the Platform and otherwise perform its obligations hereunder. Customer may export the Customer Data at any time through the features and functionalities made available via the Platform. For the avoidance of doubt, aggregated, de-identified, and anonymized portions, sets, or other combinations of Customer Data that do not contain personally identifying elements of Customer's identity or of any Authorized Users are Usage Data and not Customer Data.

9.2 Security Measures. BS&A will implement and maintain commercially reasonable administrative, physical, and technical safeguards designed to protect Customer Data (including Personal Information provided as part of Business Contact Data) from unauthorized access, use, alteration, or disclosure.

9.3 Processing of Personal Information. BS&A's rights and obligations with respect to Personal Information that it collects directly from individuals (if any) are set forth in BS&A's Privacy Policy (as amended from time to time in accordance with its terms). Personal Information processed by BS&A on behalf of Customer is considered Customer Data and is governed by the terms of this Agreement.

10. Intellectual Property Ownership; Feedback.

10.1 BS&A IP. Customer acknowledges that, as between Customer and BS&A, BS&A owns all right, title, and interest, including all intellectual property rights, in and to the BS&A IP and, with respect to Third-Party Products, the applicable third-party providers own all right, title, and interest, including all intellectual property rights, in and to the Third-Party Products.

10.2 Usage Data. Customer acknowledges that, as between BS&A and Customer, BS&A owns all right, title, and interest, including all intellectual property rights, in and to the Usage Data.

10.3 Customer Data. BS&A acknowledges that, as between BS&A and Customer, Customer owns all right, title, and interest, including all intellectual property rights, in and to the Customer Data.

10.4 Feedback. If Customer or any of its employees or contractors sends or transmits any communications or materials to BS&A by mail, email, telephone, or otherwise, suggesting or recommending changes to the BS&A IP, including without limitation, new features or functionality relating thereto, or any comments, questions, suggestions, or the like ("**Feedback**"), BS&A is free to use such Feedback irrespective of any other obligation or limitation between the Parties governing such Feedback.

11. Mutual Warranties; Disclaimer of Other Warranties.

11.1 Mutual Warranties. Each party hereby represents and warrants to the other that: (i) it has the full right, power, and authority to enter into, execute, and perform its obligations under this Agreement without any conflict with or violation of any other obligations to which it may be subject; and (ii) this Agreement is binding on such party in accordance with its terms.

11.2 Disclaimer of Other Warranties. THE BS&A IP IS PROVIDED "AS IS" AND BS&A HEREBY DISCLAIMS ALL WARRANTIES, WHETHER EXPRESS, IMPLIED, STATUTORY, OR OTHERWISE. BS&A SPECIFICALLY DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE, AND NON-INFRINGEMENT, AND ALL WARRANTIES ARISING FROM COURSE OF DEALING, USAGE, OR TRADE PRACTICE. BS&A MAKES NO WARRANTY OF ANY KIND THAT THE BS&A IP, OR ANY PRODUCTS OR RESULTS OF THE USE THEREOF, WILL MEET CUSTOMER'S OR ANY OTHER PERSON'S REQUIREMENTS, OPERATE WITHOUT INTERRUPTION, ACHIEVE ANY INTENDED RESULT, BE COMPATIBLE OR WORK WITH ANY SOFTWARE, SYSTEM OR OTHER PLATFORM, OR BE SECURE, ACCURATE, COMPLETE, FREE OF HARMFUL CODE, OR ERROR FREE.

12. Indemnification.

12.1 BS&A Indemnification.

(a) BS&A shall indemnify, defend, and hold harmless Customer from and against any and all losses, damages, liabilities, costs (including reasonable attorneys' fees) ("**Losses**") incurred by Customer resulting from any third-party claim, suit, action, or proceeding ("**Third-Party Claim**") brought against Customer alleging that the Platform, or any use of the Platform in accordance with this Agreement, infringes or misappropriates such third party's US intellectual

property rights; provided that Customer promptly notifies BS&A in writing of the claim, cooperates with BS&A, and allows BS&A sole authority to control the defense and settlement of such claim.

(b) If such a claim is made or appears possible, Customer agrees to permit BS&A, at BS&A's sole discretion: to (i) modify or replace the Platform, or component or part thereof, to make it non-infringing; or (ii) obtain the right for Customer to continue use. If BS&A determines that neither alternative is reasonably commercially available, BS&A may terminate this Agreement, in its entirety or with respect to the affected component or part, effective immediately on written notice to Customer, and as Customer's sole and exclusive remedy therefor, BS&A will provide to Customer a prorated refund of prepaid, unused Fees attributable to the Platform (and not including any one-time Fees for Professional Services).

(c) This Section 12.1 will not apply to the extent that the alleged infringement arises from: (i) use of the Platform in combination with data, software, hardware, equipment, or technology not provided by BS&A or authorized by BS&A in writing; (ii) modifications to the Platform not made by BS&A; (iii) Customer Data; or (iv) Third-Party Products.

12.2 Customer Indemnification. To the extent permitted under applicable laws, Customer shall indemnify, hold harmless, and, at BS&A's option, defend BS&A from and against any Losses resulting from any Third-Party Claim alleging that the Customer Data, or any use of the Customer Data in accordance with this Agreement, infringes or misappropriates such third party's intellectual property or other rights and any Third-Party Claims based on Customer's or any Authorized User's (i) negligence or willful misconduct; (ii) use of the Platform in a manner not authorized by this Agreement; or (iii) use of the Platform in combination with data, software, hardware, equipment or technology not provided by BS&A or authorized by BS&A in writing; in each case provided that Customer may not settle any Third-Party Claim against BS&A unless BS&A consents to such settlement, and further provided that BS&A will have the right, at its option, to defend itself against any such Third-Party Claim or to participate in the defense thereof by counsel of its own choice.

12.3 Sole Remedy. THIS SECTION 12.3 SETS FORTH CUSTOMER'S SOLE REMEDIES AND BS&A'S SOLE LIABILITY AND OBLIGATION FOR ANY ACTUAL, THREATENED, OR ALLEGED CLAIMS THAT THE PLATFORM INFRINGE, MISAPPROPRIATE, OR OTHERWISE VIOLATE ANY INTELLECTUAL PROPERTY RIGHTS OF ANY THIRD PARTY.

13. Limitations of Liability. IN NO EVENT WILL EITHER PARTY BE LIABLE UNDER OR IN CONNECTION WITH THIS AGREEMENT UNDER ANY LEGAL OR EQUITABLE THEORY, INCLUDING BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY, AND OTHERWISE, FOR ANY: (i) CONSEQUENTIAL, INCIDENTAL, INDIRECT, EXEMPLARY, SPECIAL, ENHANCED, OR PUNITIVE DAMAGES; (ii) INCREASED COSTS, DIMINUTION IN VALUE OR LOST BUSINESS, PRODUCTION, REVENUES, OR PROFITS; (iii) LOSS OF GOODWILL OR REPUTATION; (iv) USE, INABILITY TO USE, LOSS, INTERRUPTION, DELAY OR RECOVERY OF ANY DATA, OR BREACH OF DATA OR SYSTEM SECURITY; OR (v) COST OF REPLACEMENT GOODS OR SERVICES, IN EACH CASE REGARDLESS OF WHETHER BS&A WAS ADVISED OF THE POSSIBILITY OF SUCH LOSSES OR DAMAGES OR SUCH LOSSES OR DAMAGES WERE OTHERWISE FORESEEABLE. IN NO EVENT WILL EITHER PARTY'S AGGREGATE LIABILITY ARISING OUT OF OR RELATED TO THIS AGREEMENT UNDER ANY LEGAL OR EQUITABLE THEORY, INCLUDING BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY, AND OTHERWISE EXCEED THE TOTAL AMOUNTS PAID AND/OR PAYABLE TO BS&A UNDER THIS AGREEMENT IN THE TWELVE (12) MONTHS IMMEDIATELY PRECEDING THE CLAIM. THE FOREGOING LIMITATIONS OF LIABILITY WILL NOT APPLY WITH RESPECT TO LIABILITIES ARISING FROM: (A) A PARTY'S BREACH OF ITS CONFIDENTIALITY OBLIGATIONS UNDER SECTION 8; (B) A PARTY'S GROSS NEGLIGENCE, FRAUD, OR WILLFUL MISCONDUCT; OR (C) A PARTY'S INDEMNIFICATION OBLIGATIONS UNDER SECTION 12 (PROVIDED THAT BS&A'S TOTAL AGGREGATE LIABILITY IN CONNECTION WITH SUCH INDEMNIFICATION OBLIGATIONS WILL NOT EXCEED THREE TIMES (3X) THE TOTAL AMOUNTS PAID AND/OR PAYABLE TO BS&A UNDER THIS AGREEMENT IN THE TWELVE (12) MONTHS IMMEDIATELY PRECEDING THE CLAIM).

14. Subscription Period and Termination.

14.1 Subscription Period. The initial term of this Agreement begins on the Effective Date and, unless terminated earlier pursuant to this Agreement's express provisions, will continue in effect for the period identified in the Order (the "**Initial Subscription Period**"). This Agreement will automatically renew for additional successive terms equal to the length of the Initial Subscription Period unless earlier terminated pursuant to this Agreement's express provisions or either Party gives the other Party written notice of non-renewal at least thirty (30) days prior to the expiration of the then-current term (each a "**Renewal Subscription Period**" and together with the Initial Subscription Period, the "**Subscription Period**").

14.2 Termination. In addition to any other express termination right set forth in this Agreement:

(a) BS&A may terminate this Agreement, effective on written notice to Customer, if Customer: (i) fails to pay any amount when due hereunder, and such failure continues more than ten (10) calendar days after BS&A's delivery of written notice thereof; or (ii) breaches any of its obligations under Section 2.3 or Section 8;

(b) either Party may terminate this Agreement, effective on written notice to the other Party, if the other Party materially breaches this Agreement, and such breach: (i) is incapable of cure; or (ii) being capable of cure, remains uncured thirty (30) calendar days after the non-breaching Party provides the breaching Party with written notice of such breach; or

(c) either Party may terminate this Agreement, effective immediately upon written notice to the other Party, if the other Party: (i) becomes insolvent or is generally unable to pay, or fails to pay, its debts as they become due; (ii) files or has filed against it, a petition for voluntary or involuntary bankruptcy or otherwise becomes subject, voluntarily or involuntarily, to any proceeding under any domestic or foreign bankruptcy or insolvency law; (iii) makes or seeks to make a general assignment for the benefit of its creditors; or (iv) applies for or has appointed a receiver, trustee, custodian, or similar agent appointed by order of any court of competent jurisdiction to take charge of or sell any material portion of its property or business.

14.3 Effect of Expiration or Termination. Upon expiration or earlier termination of this Agreement, Customer shall immediately discontinue use of the BS&A IP and, without limiting Customer's obligations under Section 8, Customer shall delete, destroy, or return all copies of the BS&A IP and certify in writing to the BS&A that the BS&A IP has been deleted or destroyed. No expiration or termination will affect Customer's obligation to pay all Fees that may have become due before such expiration or termination or entitle Customer to any refund.

14.4 Survival. This Section 14.4 and Sections 1, 5, 8, 10, 11, 12, 13, 14.3, and 15 survive any termination or expiration of this Agreement. No other provisions of this Agreement survive the expiration or earlier termination of this Agreement.

15. Miscellaneous.

15.1 Relationship of the Parties. BS&A performs its obligations hereunder as an independent contractor and not a partner, joint venture, or agent of Customer and shall not bind nor attempt to bind Customer to any contract without Customer's prior written approval on a case-by-case basis. BS&A is responsible for hiring, firing, and supervising its personnel is solely responsible hereunder for its personnel, including without limitation for: (a) payment of compensation to such personnel; (b) withholding (if applicable), paying, and reporting, for all personnel assigned to perform services (including Professional Services) in connection with this Agreement, applicable tax withholding, social security taxes, employment head taxes, unemployment insurance, and other taxes or charges applicable to such personnel; and (c) health or disability benefits, retirement benefits, or welfare, pension, or other benefits (if any) to which such personnel may be entitled. For purposes of clarity, BS&A's personnel will not be eligible to participate in any of Customer's employee benefit plans, fringe benefit programs, group insurance arrangements, or similar programs.

15.2 Entire Agreement. This Agreement, together with any other documents incorporated herein by reference, constitutes the sole and entire agreement of the Parties with respect to the subject matter of this Agreement and supersedes all prior and contemporaneous understandings, agreements, and representations and warranties, both written and oral, with respect to such subject matter. In the event of any inconsistency between the statements made in the body of this Agreement, the related Exhibits, and any other documents incorporated herein by reference, the following order of precedence governs: (i) first, this Agreement; and (ii) second, any other documents incorporated herein by reference.

15.3 Notices. All notices, requests, consents, claims, demands, waivers, and other communications hereunder (each, a "Notice") must be in writing and addressed to the Parties at the addresses set forth on the first page of this Agreement (or to such other address that may be designated by the Party giving Notice from time to time in accordance with this Section). All Notices must be delivered by personal delivery, nationally recognized overnight courier (with all fees pre-paid), facsimile or email (with confirmation of transmission) or certified or registered mail (in each case, return receipt requested, postage pre-paid). Except as otherwise provided in this Agreement, a Notice is effective only: (i) upon receipt by the receiving Party; and (ii) if the Party giving the Notice has complied with the requirements of this Section.

15.4 Force Majeure. In no event shall either Party be liable to the other Party, or be deemed to have breached

this Agreement, for any failure or delay in performing its obligations under this Agreement (except for any obligations to make payments), if and to the extent such failure or delay is caused by any circumstances beyond such Party's reasonable control, including but not limited to acts of God, flood, fire, earthquake, explosion, war, terrorism, invasion, riot or other civil unrest, strikes, labor stoppages or slowdowns or other industrial disturbances, or passage of law or any action taken by a governmental or public authority, including imposing an embargo.

15.5 Amendment and Modification. No amendment or modification to this Agreement is effective unless it is in writing and signed by an authorized representative of each Party.

15.6 Waiver. No failure or delay by either Party in exercising any right or remedy available to it in connection with this Agreement will constitute a waiver of such right or remedy. No waiver under this Agreement will be effective unless made in writing and signed by an authorized representative of the Party granting the waiver.

15.7 Severability. If any provision of this Agreement is invalid, illegal, or unenforceable in any jurisdiction, such invalidity, illegality, or unenforceability will not affect any other term or provision of this Agreement or invalidate or render unenforceable such term or provision in any other jurisdiction. Upon such determination that any term or other provision is invalid, illegal, or unenforceable, the Parties shall negotiate in good faith to modify this Agreement so as to effect their original intent as closely as possible in a mutually acceptable manner in order that the transactions contemplated hereby be consummated as originally contemplated to the greatest extent possible.

15.8 Governing Law; Submission to Jurisdiction. To the extent permissible under applicable laws, this Agreement is governed by and construed in accordance with the internal laws of the State of Delaware without giving effect to any choice or conflict of law provision or rule that would require or permit the application of the laws of any jurisdiction other than those of the State of Delaware. To the extent permissible under applicable laws, any legal suit, action, or proceeding arising out of or related to this Agreement must be instituted in the federal courts of the United States or the courts of the State of Delaware in each case located in New Castle County, Delaware and each Party irrevocably submits to the exclusive jurisdiction of such courts in any such suit, action, or proceeding. If Customer is located in a jurisdiction that requires that this Agreement be governed by and construed in accordance with laws other than those of the State of Delaware, or that require any legal suits, actions, or proceedings arising out of or related to this Agreement be instituted in state and federal courts located anywhere other than New Castle County, Delaware, then the Parties agree that such other laws shall apply and to institute any such legal suits, actions, or proceedings in such other jurisdiction(s).

15.9 Assignment. Neither Party may assign any of its rights or delegate any of its obligations hereunder (except in the case of either Party utilizing authorized subcontractors and consultants), in each case whether voluntarily, involuntarily, by operation of law or otherwise, without the prior written consent of the other Party. Any purported assignment or delegation in violation of this Section will be null and void. No assignment or delegation will relieve the assigning or delegating Party of any of its obligations hereunder. This Agreement is binding upon and inures to the benefit of the Parties and their respective permitted successors and assigns. Notwithstanding the foregoing, either Party may freely assign this Agreement to an affiliate or successor in interest in the event of a merger, acquisition, sale of all or substantially all of its assets, corporate reorganization, or other change in control, without the prior consent of the other Party.

15.10 Export Regulation. The Platforms utilize software and technology that may be subject to US export control laws, including the US Export Administration Act and its associated regulations. Customer shall not, directly or indirectly, export, re-export, or release the Platform or the underlying software or technology to, or make the Platform or the underlying software or technology accessible from, any jurisdiction or country to which export, re-export, or release is prohibited by law, rule, or regulation. Customer shall comply with all applicable federal laws, regulations, and rules, and complete all required undertakings (including obtaining any necessary export license or other governmental approval), prior to exporting, re-exporting, releasing, or otherwise making the Platform or the underlying software or technology available outside the US.

15.11 US Government Rights. Each of the Documentation and software components that constitute the Platform is a "commercial item" as that term is defined at 48 C.F.R. § 2.101, consisting of "commercial computer software" and "commercial computer software documentation" as such terms are used in 48 C.F.R. § 12.212. Accordingly, if Customer is an agency of the US Government or any contractor therefor, Customer only receives those rights with respect to the Documentation and the Platform as are granted to all other end users, in accordance with (a) 48 C.F.R. § 227.7201 through 48 C.F.R. § 227.7204, with respect to the Department of Defense and their contractors, or (b) 48 C.F.R. § 12.212, with respect to all other US Government users and their contractors.

15.12 Equitable Relief. Each Party acknowledges and agrees that a breach or threatened breach by such Party of any of its obligations under Section 8 or, in the case of Customer, Section 2.3, would cause the other Party irreparable harm for which monetary damages would not be an adequate remedy and agrees that, in the event of such breach or threatened breach, the other Party will be entitled to equitable relief, including a restraining order, an injunction, specific performance and any other relief that may be available from any court, without any requirement to post a bond or other security, or to prove actual damages or that monetary damages are not an adequate remedy. Such remedies are not exclusive and are in addition to all other remedies that may be available at law, in equity or otherwise.

EXHIBIT B
PRICING SHEET
(Based on Q-01232 dated 6/30/25)

Upgrade - Cloud Modules – Annual Fee

Financial Management

GL-General Ledger	\$11,865.00
AP-Account Payable	\$9,760.00
PO-Purchase Order	\$9,575.00
CR-Cash Receipting	\$10,695.00
Total	\$41,895.00

Personnel Management

PR-Payroll	\$16,130.00
Total	\$16,130.00

Community Development

BD-Building Department	\$19,205.00
Total	\$19,205.00

Property

ASG-Assessing	\$10,900.00
AL-Animal License	\$5,630.00
TX-Tax	\$7,045.00
DPP-Delinquent Personal Property	\$2,355.00
Total	\$25,930.00

Subtotal	\$103,160.00
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New Purchase - Cloud Modules - Annual Fee

Property

SPAS-Special Assessments		\$3,680.00
	Total	\$3,680.00
	Subtotal	\$3,680.00

Project Management and Implementation Planning

Services include:

- Analyzing customer processes to ensure all critical components are addressed.
- Creating and managing the project schedule in accordance with the customer's existing processes and needs.
- Planning and scheduling training around any planned process changes included in the project plan.
- Modifying the project schedule as needed to accommodate any changes to the scope and requirements of the project that are discovered.
- Providing a central contact between the customer's project leaders, developers, trainers, IT staff, conversion staff, and other resources required throughout the transition period.
- Installing the software and providing IT consultation for network, server, and workstation configuration and requirements.
- Reviewing and addressing the specifications for needed customizations to meet customer needs (when applicable).

Total \$43,755.00

Implementation and Training

- \$1,325/day
- Days quoted are estimates; you are billed for actual days used
- Training days quoted/billed in full day increments only

Services include:

- Setting up users and user security rights for each application
- Performing final process and procedure review
- Configuring custom settings in each application to fit the needs of the customer
- Setting up application integration and workflow methods
- Onsite verification of converted data for balancing and auditing purposes
- Training and Go-Live

Setup Days

ITS Setup - FM	Setup Days: 2	\$2,650.00
ITS Setup - HRIS	Setup Days: 2	\$2,650.00
ITS Setup - CD	Setup Days: 2	\$2,650.00
ITS Setup - Property	Setup Days: 4	\$5,300.00
	Total Setup Days: 10	Subtotal: \$13,250.00

Training Days

ITS Training - FM	Training Days: 14	\$18,550.00
ITS Training - HRIS	Training Days: 7	\$9,275.00
ITS Training - CD	Training Days: 15	\$19,875.00
ITS Training - Property	Training Days: 7	\$9,275.00
Total Training Days: 43		Subtotal: \$56,975.00
Total Days: 53		Total: \$70,225.00

Cost Totals

Upgrade Modules – Annual Fee	Subtotal	\$103,160.00
Cloud New Purchase – Annual Fee	Subtotal	\$3,680.00
Project Management	Subtotal	\$43,755.00
Implementation and Training	Subtotal	\$70,225.00
Total Proposed		\$220,820.00
Estimated Travel		\$7,825

Estimated Travel Expenses are outlined in this proposal. The final invoice will reflect actual expenses following the completion of all training activities based on the Federal Guidelines described below.

\$160/\$185/\$225 per day hotel, varies by state
\$90 per day car rental
\$70 per day meals
\$730 per trip airfare/related expenses
\$0.70/mile round trip for drive distance

Payment Schedule

- | | |
|--------------------------|--|
| 1 st Payment: | \$43,755 to be invoiced upon execution of this agreement. |
| 2 nd Payment: | \$106,840 to be invoiced at activation of customer's site. |
| 3 rd Payment: | \$78,050 to be invoiced upon completion of training. |

**CHARTER TOWNSHIP OF YPSILANTI
ORDINANCE NO. 2025 – 511**

An ordinance to amend Chapter 62, Article IV, Section 62-76(a) of the Code of Ordinances, Charter Township of Ypsilanti, to adjust water service rates.

BE IT ORDERED BY THE CHARTER TOWNSHIP OF YPSILANTI, that:

Section 62-76(a) of Chapter 62, Article IV of the Code of Ordinances be revised as follows:

- (a) Except as otherwise provided in this section, water to be furnished by the system shall be measured by a meter controlled by the Ypsilanti Community Utilities Authority.

For all billings rendered prior to September 1, 2025, existing water service rates shall prevail. For all billings rendered on or after September 1, 2025, charges for water service rates shall be as follows, for each bimonthly (two-month) period:

(1) Readiness-to-serve rates based on size of meter:

Meter Size (inch)	Water Rate
5/8-3/4	\$ 18.96
1	\$ 47.39
1-1/2	\$ 94.78
2	\$ 151.65
3	\$ 473.90
4	\$ 947.80
6	\$ 1,895.59
8	\$ 3,317.28
10	\$ 5,212.88
12	\$ 6,160.67

(2) Commodity rate: \$4.10 per 100 cubic feet

**CHARTER TOWNSHIP OF YPSILANTI
ORDINANCE NO. 2025 – 512**

An ordinance to amend Chapter 62, Article IV, Section 62-77 of the Code of Ordinances, Charter Township of Ypsilanti, to adjust sewage disposal rates.

BE IT ORDERED BY THE CHARTER TOWNSHIP OF YPSILANTI, that:

Section 62-77 of Chapter 62, Article IV of the Code of Ordinances be revised as follows:

For all billings rendered prior to September 1, 2025, existing sewage disposal service rates shall prevail. For all billings rendered on or after September 1, 2025, charges for sewage disposal services shall be as follows, for each bimonthly (two-month) period:

(1) Readiness-to-serve rates based on size of meter:

Meter Size (inch)	Sewer Rate
5/8-3/4	\$ 19.60
1	\$ 49.01
1-1/2	\$ 98.00
2	\$ 156.81
3	\$ 490.03
4	\$ 980.07
6	\$ 1,960.12
8	\$ 3,430.23
10	\$ 5,390.35
12	\$ 6,370.42

(2) Commodity rate: \$3.23 per 100 cubic feet

* * * * *



Dedicated to Providing Top Quality, Cost Effective, and
Environmentally Safe Water and Wastewater Services to Our Customers

YPSILANTI COMMUNITY UTILITIES AUTHORITY

2777 STATE ROAD
YPSILANTI, MICHIGAN 48198-9112
TELEPHONE: 734-484-4600
WEBSITE: www.ycua.org

June 30, 2025

VIA EMAIL

CHARTER TOWNSHIP OF YPSILANTI
Board of Trustees
7200 South Huron Drive
Ypsilanti, Michigan 48197

Re: Water and Sewer Rate Changes

Dear Trustees:

Please be advised that the Authority's Board of Commissioners approved a 5.69% water and readiness-to-serve rate increase at their regular meeting on June 25, 2025. The Ypsilanti Township Utilities Ordinance authorizes the Authority's Board to increase the water rate equally commensurate with the increase it receives from the Great Lakes Water Authority (GLWA). GLWA's increase to the Authority was 5.69%, which will take effect on July 1, 2025. At the same meeting, the Authority's Board approved a recommendation to the Township Board of Trustees to increase the sewer and readiness to serve rate by 5.75%. The combined effect of these rate adjustments will be a 5.72% increase in a Township Division customer's bimonthly bill.

The ordinances needed for the adoption of these rate adjustments are included in this correspondence for your review. Please also find enclosed a document summarizing YCUA's budget related to the Fiscal Year 2025-26, which was also approved by YCUA's Board of Commissioners on June 25, 2025.

Please contact me with any questions or concerns regarding this information by email at lblackburn@ycua.org or by phone at 734-484-4600 ext. 116.

Sincerely,

A handwritten signature in blue ink that reads 'Luther Blackburn'.

LUTHER BLACKBURN, Executive Director
Ypsilanti Community Utilities Authority

Enclosures
cc w/encl.:

YCUA Board of Commissioners
Ms. Angie Rogers
Mr. Matthew T. Jane
Mr. Dwayne Harrigan
Ms. Gail M. Thomas



YPSILANTI COMMUNITY UTILITIES AUTHORITY

2777 STATE ROAD
YPSILANTI, MICHIGAN 48198-9112
TELEPHONE: 734-484-4600
WEBSITE: www.ycua.org

2025-26 Budget Highlights

The Authority's 2025/2026 annual budget reflects a continued commitment to invest in our system's infrastructure while managing increased costs and a tempered consumption forecast. Revenue is estimated to be \$50.91 million with expenditures of \$51.39 million (*includes depreciation but does not include debt service*). Please find below various highlights and factors that the Authority considered in developing this year's annual budget.

- Water sales demonstrate a relatively flat consumption over the last 5 years (usage in MCF or 1000 cubic feet):

Fiscal Year	Sales (MCF)	% Change from Prior Year	Purchased	% Change from Prior Year	Water Loss (%)
2020	468635	2.23%	494771	2.21%	5.28%
2021	461623	-1.50%	478318	-3.33%	3.49%
2022	478329	3.62%	504391	5.45%	5.17%
2023	472151	-1.29%	491830	-2.49%	4.00%
2024	464690	-1.58%	469603	-4.52%	1.05%
	Current YTD	2.8%			

- Based upon year-to-date usage, we are projecting 2025 water usage to come in at 465,000 MCF.
- Increased GLWA and professional service costs contribute to most of the increases in the 2025/2026 budget. Overall expenditures are estimated to increase by \$0.9 million (~1.8%) over the 2024/2025 budget, with many budgeted items being reduced to minimize the overall increase. The following details most of the anticipated increases:

GLWA Water	\$675,000 (GLWA's 4% promise on revenue requirement ended in 2025)
Professional Services*	\$500,000

* includes but is not limited to electrical, mechanical, and engineering services.

- Planned capital acquisitions include the following:

Road Repairs	\$800,000
Fleet Vehicles	\$850,000 (includes \$650k for a Vactor)
WWTP Improvements	\$700,000

- Inability to access state and federal funding for capital improvement projects continues to add stress to an already scaled-down budget. Current and upcoming capital improvement projects include:

Headworks Odor Control Improvements (construction phase) ~ \$8.95M

Primary Switchgear Replacement (construction phase) ~ \$3.92M

Sugarbrook Water Main Improvements (construction phase) ~ \$6.1M

West Warner Water Main Loop (construction phase) ~ \$0.17M

Lead Service Line Replacement - Public Right-of-Way (construction phase) ~ \$0.13M

Water Meter Upgrades – City (construction phase) ~ \$2.28M

Harriet Street Water Main Replacement – West (construction phase) ~ \$0.65M

Clark Road Pump Station Improvements (bidding phase) ~ \$1.53M

Ellsworth Storage Tank Improvements (bidding phase) ~ \$1.3M

Water Meter Upgrades – Township Phase I (construction phase) ~ \$2.67M

For the 2025/2026 Budget, we propose a 5.69% increase in water rates and a 5.75% increase in sewer rates for the Township:

Twtp Customers: For an average bill (10 units of usage), the bi-monthly cost would be \$111.80. This is an increase of \$6.05 per bill or \$3.02 per month.

For the 2025/2026 Budget, we propose a 4.75% increase in water rates and a 5.25% increase in sewer rates for the City:

City Customers: For an average bill (10 units of usage), the bi-monthly cost would be \$147.00. This is an increase of \$6.92 per bill or \$3.46 per month.

Other Community Rate Increases:

City of Saline - an increase of 6.5% water rate and 7.5% sewer rate in January 2025

City of Warren - an increase of 7.5% water rate and 7.5% sewer rate in April 2025

Macomb Township - an increase of 5.9% water rate and 4.5% sewer rate in February 2025

Waterford Township - an increase of 3.25% water rate and 3% sewer rate in January 2025

YCUA Township Division

	water	sewer	Total
Current			
Ready to Service	\$17.94	\$18.54	\$36.47
Commodity rate (per unit)	\$3.88	\$3.05	\$6.93

Average User residential

	10 units(7,480 gallons) per 2 month billing cycle		
	water	sewer	Total
Ready to Service	\$17.94	\$18.54	\$36.47
10 units	\$38.78	\$30.50	\$69.28
Total	\$56.71	\$49.04	\$105.75

Effect on average Township customers with a proposed 5.69% water rate increase, a sewer rate increase of 5.75%. Combined effect 5.72%

	water	sewer	Total
PROPOSED: September 1, 2025			
Ready to Service	\$ 18.96	\$ 19.60	\$38.56
Commodity rate (per unit)	\$ 4.10	\$ 3.23	\$7.32

Average User residential (proposed)

	10 units(7,480 gallons) per 2 month billing cycle		
	water	sewer	Total
Ready to Service	\$18.96	\$19.60	\$38.56
10 units	\$40.98	\$32.26	\$73.24
Total	\$59.94	\$51.86	\$111.80
Increase in bill			\$ 6.05
Percent Change	5.69%	5.75%	5.72%

Township Supervisor
Brenda L. Stumbo
Township Clerk
Debbie Swanson
Township Treasurer
Stan Eldridge



YPSILANTI TOWNSHIP

—ASSESSMENT DEPARTMENT—

Trustees
John Newman II
Gloria Peterson
Karen Lovejoy Roe
LaResha Thornton

Date: June 30, 2025

To: Debbie Swanson,
Ypsilanti Township Clerk

From: Brian McCleery,
Deputy Assessor

Subject: Authorization to Enter into Negotiations to Sell Township Owned
Property

K-11-11-430-009

2162 Ecorse Rd

The Assessment Department is requesting authorization to enter into negotiations to sell the above parcel currently owned by Ypsilanti Township. An appraisal of the property will be conducted to estimate the market value, **As Is**, of the property. Our department is requesting authorization to start the negotiations at the appraised value and work to arrive at a Fair Market Value for the property.

The parcel is a R-5 zoned residential property that is a non-subdivision, metes and bounds described property with a 78.91' of frontage. Mark Daniels, the owner of the adjacent vacant parcel at 2184 Ecorse Rd sent me the attached email requesting information on purchasing this property. His parcel is labeled as -008 on the aerial photographs and is to the East of 2162 Ecorse Rd. He has also sent in a drawing of the type of home he would like to build on the property. He indicated that he would like to keep the two lots separate as he might want to build a second home at 2184 Ecorse Rd.

Attached you will find aerial photograph maps, record card and the deed to the Township property. I have also attached Mr. Daniels' email and record card for his property. If you have any questions or need more information, please don't hesitate to contact me.

Authorization to negotiate sale

From Q260 LLC <q260llc@gmail.com>

Date Tue 5/27/2025 8:12 AM

To Brian McCleery <bmcclery@ypsitownship.org>

 1 attachment (269 KB)

2162 ECORSE RD.png;

You don't often get email from q260llc@gmail.com. [Learn why this is important](#)

Good morning Brian,

I want to move forward with the authorization to negotiate the sale of 2162 ECORSE RD (K -11-11-430-009).

I'm looking to build a 3 bedroom / 2 bathroom single-family home on the property for my mother & disabled adult son. The home would be a 1 Story Bi-Level approximately 1,500 sqft . I've attached a rough idea of what I'm looking to do.

Thank you,

Mark Daniels
248-289-0115



✓

QUITCLAIM DEED

Pursuant to section 78m of The General Property Tax Act, 1893 PA 206 as amended (MCL 211.78m), Grantor, Catherine McClary, Washtenaw County Treasurer and Foreclosing Governmental Unit for Washtenaw County, whose address is 200 N. Main Street, Suite 200, P.O. Box 8645, Ann Arbor, Michigan 48107-8645, quitclaims to the Grantee, the Charter Township of Ypsilanti, a Michigan municipal corporation, whose address is 7200 S. Huron River Dr., Ypsilanti, MI 48197, the premises in the Charter Township of Ypsilanti, Washtenaw County, Michigan, described as:

SEE ATTACHED EXHIBIT A

by operation of law for no monetary consideration as required by MCL 211.78m(6) of The General Property Tax Act, 1893 PA 206, as amended, subject to any liens, easements, building or use restrictions, governmental interests, or special assessments not extinguished pursuant to section 78k of The General Property Tax Act, 1893 PA 206, as amended (MCL 211.78k). As required by MCL 211.78m (12), all taxes due on the property as of Dec. 31, 2011 are cancelled effective on Dec. 31, 2011. As required by MCL 211.78m (13), all liens for costs of demolition, safety repairs, debris removal, sewer or water charges due on the properties as of December 31, 2011 are canceled effective on December 31, 2011.

By accepting this Deed, the Grantee and its successors and assigns agree to be bound by and comply with the following covenants that shall run with the land conveyed by this Deed:

1. Not to sue the Washtenaw County Treasurer, the County of Washtenaw, or any of its departments, boards, commissions, officers, employees, or agents for any claim, whether legal or equitable, arising under, or in any manner related to this Deed. To release, waive, and discharge the Washtenaw County Treasurer, the County of Washtenaw, and all its departments, boards, commissions, officers, employees, and agents, and its successors and assigns from any and all liability to the Grantee and its successors and assigns, for all losses, injury, or damage to person or property, or death, and any claims or demands therefore arising under, or in any manner related to this Deed whether caused by the Washtenaw County Treasurer, the County of Washtenaw, or any of its departments, agencies, boards, commissions, officers, employees, or agents.

2. To indemnify and hold harmless the Washtenaw County Treasurer, the County of Washtenaw, and all of its departments, agencies, boards, commissions, officers, employees, and agents from any and all claims, demands, judgments, and expenses, including attorney fees, for any and all loss, damage, death, or injury to person or property arising under, or in any manner related to the performance of, this Deed. This indemnification and hold harmless agreement is intended to and shall extend to all loss, damage, death, or injury to person or property, proximately caused in whole or in part by the negligence or other tortious conduct of the Washtenaw County Treasurer, the County of Washtenaw, its departments, boards, commissions, agencies, officers, employees, or agents.

The Grantor grants to the Grantee the right to make any authorized division(s) under section 108 of the land division act, Act No. 288 of the Public Acts of 1967.

This property may be located within the vicinity of farm land or a farm operation. Generally accepted agricultural and management practices which may generate noise, dust, odors, and other associated conditions may be used and are protected by the Michigan Right to Farm Act.

Dated 12/28/2011

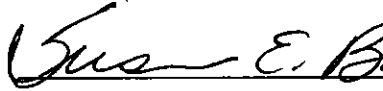
Susan E. Bos, Notary Public
State of Michigan
County of Washtenaw
My commission expires June 19, 2012
Acting in the County of Washtenaw

GRANTOR

Catherine McClary
Washtenaw County Treasurer and Foreclosing
Governmental Unit for Washtenaw County

(STATE OF MICHIGAN) (WASHTENAW COUNTY)

The foregoing instrument was acknowledged before me on 12-29-11, by Catherine McClary, the Washtenaw County Treasurer and Foreclosing Governmental Unit for Washtenaw County.


Notary Public, Washtenaw County

Susan E. Bos, Notary Public
State of Michigan
County of Washtenaw
My commission expires June 19, 2012
Acting in the County of Washtenaw

Susan E. Bos, Notary Public
State of Michigan
County of Washtenaw
My commission expires June 19, 2012

Because in this written instrument the grantor is an officer of a political subdivision of the State of Michigan acting in an official capacity, the instrument is exempt from the state real estate transfer tax pursuant to section 6(h) of the State Real Estate Transfer Tax Act, 1993 PA 330, as amended (MCL 207.526(h)), and exempt from the real estate transfer tax levied under 1966 PA 134, as amended (MCL 207.501 to 207.513), pursuant to section 5(h) of 1966 PA 134, as amended (MCL 207.505(h)).

When recorded, return to:
Charter Township of Ypsilanti
7200 S. Huron River Dr.
Ypsilanti, MI 48197

Send subsequent tax bills to:
Charter Township of Ypsilanti
7200 S. Huron River Dr.
Ypsilanti, MI 48197

Prepared by:
Deborah J. Dunn
Washtenaw County Treasurer's
Office
200 N. Main St., Suite 200
P.O. Box 8645
Ann Arbor, MI 48107-8645

Tax Parcel Number
See Attached Exhibit A- 17 parcels

Recording fee:
\$13.00

Transfer fee:
\$ 0.00

Time Submitted for Recording
Date 12-30-2011 Time 10:30 AM
Lawrence Kestenbaum
Washtenaw County Clerk/Registrar

14

EXHIBIT A

Parcel ID #	Address	Legal Description
K-11-02-373-047	599 E. Grand Blvd., Ypsilanti, MI 48198	YP#58-113B LOT 115-EAST PARK SUB.
K-11-02-375-005	N. Ford Blvd., Ypsilanti, MI 48198	YP# 58-243 LOT 243, EXCEPT W 20 FT, ALSO S 10 FT OF E 123.6 FT OF LOT 244EAST PARK SUBDIVISION.
K-11-02-381-012	Jerome Ave., Ypsilanti, MI 48198	YP#76-199 LOT 199 LAY GARDEN SUBDIVISION.
K-11-02-381-013	101 Lamay Ave., Ypsilanti, MI 48198	YP#76-212 LOT 212 LAY GARDEN SUB.
K-11-02-457-007	Broadmoor Ave., Ypsilanti, MI 48198	YP# 55-31 LOT 445 DEVONSHIRE SUBDIVISION NO. 4.
K-11-02-457-008	Lakewood Ave., Ypsilanti, MI 48198	YP# 55-20 LOT 435 DEVONSHIRE SUBDIVISION NO. 4.
K-11-02-457-009	Lakewood Ave., Ypsilanti, MI 48198	YP# 55-21 LOT 436 DEVONSHIRE SUBDIVISION NO. 4.
K-11-10-180-005	116 S. Harris Rd., Ypsilanti, MI 48198	YP#107-26 LOT 26 YPSI LITTLE FARMS SUBD'N.
K-11-10-386-023	855 Auburndale Ave., Ypsilanti, MI 48198	YP# 93-25 LOT 158 STURTEVANT MANOR SUBDIVISION NO. 1.
K-11-10-480-020	S. Harris Rd., Ypsilanti, MI 48198	YP#74-302-304 LOTS 302 - 304 INCL. EXC THE E 27 FEET LAPHAM & HOWE'S YPSI MANORSUBDIVISION. (PER CED, PROPERTY IS LANDLOCKED AND UNBUILDABLE)
K-11-10-480-021	S. Harris Rd., Ypsilanti, MI 48198	YP#74-305-308 LOTS 305 - 308 INCL. EXC THE E 27 FEET LAPHAM & HOWE'S YPSI MANORSUBDIVISION. (PER CED, PROPERTY IS LANDLOCKED AND UNBUILDABLE)
K-11-10-480-022	S. Harris Rd., Ypsilanti, MI 48198	YP#74-309 LOTS 309 -314 INCL. EXC THE E 17 FEET LAPHAM & HOWE'S YPSI MANORSUBDIVISION. (PER CED, PROPERTY IS LANDLOCKED AND UNBUILDABLE)
K-11-11-242-026	Devonshire Rd., Ypsilanti, MI 48198	YP51-38 LOT 38 DEVONSHIRE SUB.
K-11-11-332-028	Greenlawn St., Ypsilanti, MI 48198	LOT 118 EAST LAWN SUBDIVISION. SPLIT ON 06/04/2004 FROM K -11-11-332-011;
K-11-11-332-029	Greenlawn St., Ypsilanti, MI 48198	LOT 117 EAST LAWN SUBDIVISION. SPLIT ON 06/04/2004 FROM K -11-11-332-011;
K-11-11-430-009	I-94 Service Dr., Ypsilanti, MI 48198	YP#11-34 LOT 22, UNRECORDED PLAT, DESC AS FOLLOWS, COM AT S 1/4 POST OF SEC, TH N 89 DEG 47' E 409.31 FT IN THE S LINE OF SEC, TH N 0 DEG 09' W 2307.32 FT, TH N 62 DEG 21' 45" E 473.46 FT FOR A PL OF BEG, TH N 62 DEG 21' 45" E 78.91 FT, TH S 0 DEG 09' E 301.60 FT, TH S 89 DEG 47' W 70 FT, TH N 0 DEG 09' W 265.36 FT TO THE PL OF BEG, BEING A PART OF W 1/2 OF SE 1/4 SEC. 11 T3S R7E.
K-11-13-331-002	Watson St., Ypsilanti, MI 48198	YP#104-1485 LOTS 1805 - 1806 INCL. WATSONIA PARK SUBDIVISION.



-043

K -11-11-430-043

.31 Ac.

70.65

136.58

112.50

-008

K -11-11-430-008

.88 Ac.

-042

K -11-11-430-042

.21 Ac.

131

353.5

216.92

-009

K -11-11-430-009

.46 Ac.

301.6

265.36

-010

K -11-11-430-010

.02 Ac.

85.07

-041

75

K -11-11-430-041

75

86

-040

65

K -11-11-430-040

75

24.04

15

70

100

35

46

175

107.84

-039

K -11-11-430-039

60

60

107.84

K -11-11-430-038

-038

U.S.-12 BYPASS

K-11-11-100-010

1 Ac.

ECO

-008
K-11-11-430-008
.88 Ac.

-009
K-11-11-430-009
.46 Ac.

-010
K-11-11-430-010
.92 Ac.

-011
K-11-11-430-011
1.38 Ac.

-012

K-11-11-430-012

9.5 Ac.

ONANDAGA AVE

NASH AVE

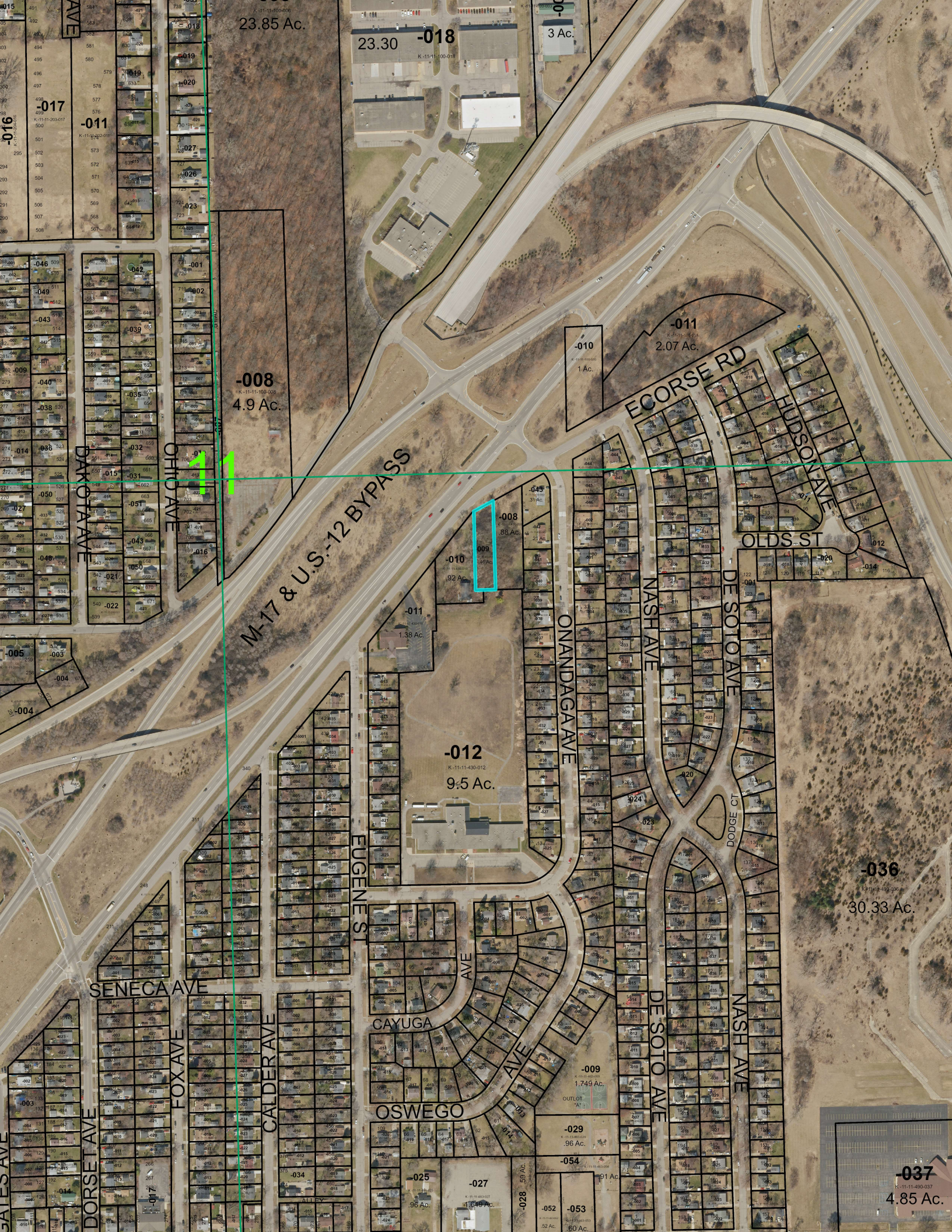
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-043
K-11-11-430-043
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-042
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23.85 Ac.

23.30 -018

3 Ac.

017
016
011

019
020
027
026
023

-008
4.9 Ac.

-011
2.07 Ac.

ECORSE RD

HUDSON AVE

OLDS ST

M-17 & U.S.-12 BYPASS

-008
88 Ac.

-010
92 Ac.

-011
1.38 Ac.

ONANDAGA AVE

NASH AVE

DE SOTO AVE

DODGE CT

-012
9.5 Ac.

EUGENE ST

-036
30.33 Ac.

SENECA AVE

FOX AVE

CALDER AVE

CAYUGA AVE

OSWEGO AVE

DE SOTO AVE

NASH AVE

SALES AVE

DORSET AVE

017

-025
96 Ac.

-027
1.049 Ac.

-028
50 Ac.


-029
96 Ac.

-054
91 Ac.


-052
52 Ac.

-053
60 Ac.

-037
4.85 Ac.

Grantor	Grantee	Sale Price		Sale Date	Inst. Type	Terms of Sale		Liber & Page	Verified By	Prcnt. Trans.			
WASHTENAW COUNTY TREASURE	CHARTER TOWNSHIP OF YPSIL	0		12/28/2011	QC	21-NOT USED/OTHER		L 4881 P 200	DEED	100.0			
MARTIN, MARK A.	MARTIN, MARK A.	1		01/10/2005	QC	21-NOT USED/OTHER		4455/551	PROPERTY TRANSFER	0.0			
COOK, WILLIAM H. & VERA C	MARTIN, JEFFREY	9,500		11/22/2003	WD	16-LC PAYOFF		4362/61	DEED	0.0			
MARTIN, JEFFREY	MARTIN, MARK A.	4,000		11/22/2003	QC	21-NOT USED/OTHER		4362/62	OTHER	0.0			
Property Address		Class: RESIDENTIAL-VACAN			Zoning: R-5	Building Permit(s)		Date	Number	Status			
2162 ECORSE RD		School: YPSILANTI SD (WILLOW RUN DEBT)											
		P.R.E. 0%											
Owner's Name/Address		MAP #: R 011 037 00											
CHARTER TWP OF YPSILANTI 7200 S HURON RIVER DR YPSILANTI MI 48197		2026 Est TCV 0											
		Improved	X	Vacant	Land Value Estimates for Land Table 00900.EXEMPT - YPSILANTI TWP 900								
		Public Improvements			* Factors *								
		Dirt Road Gravel Road Paved Road Storm Sewer Sidewalk Water Sewer Electric Gas Curb Street Lights Standard Utilities Underground Utils.			Description	Frontage	Depth	Front	Depth	Rate %Adj. Reason	Value		
					ROW			0.406 Acres			0 100	0	
								0.054 Acres			0 100	0	
								0.46 Total Acres			Total Est. Land Value =		0
Tax Description													
YP#11-34 LOT 22, UNRECORDED PLAT, DESC AS FOLLOWS, COM AT S 1/4 POST OF SEC, TH N 89 DEG47' E 409.31 FT IN THE S LINE OF SEC, TH N 0 DEG 09' W 2307.32 FT, TH N 62 DEG 21' 45" E 473.46 FT FOR A PL OF BEG, TH N 62 DEG 21' 45" E 78.91 FT, TH S 0 DEG 09' E 301.60 FT, TH S 89 DEG 47' W 70 FT, TH N 0 DEG 09' W 265.36 FT TO THE PL OF BEG, BEING A PART OF W 1/2 OF SE 1/4 SEC. 11 T3S R7E. .46 AC													
Comments/Influences													
		Topography of Site											
		Level Rolling Low High Landscaped Swamp Wooded Pond Waterfront Ravine Wetland Flood Plain			Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value		
		Who When What			2026	EXEMPT	EXEMPT	EXEMPT			EXEMPT		
					2025	EXEMPT	EXEMPT	EXEMPT			EXEMPT		
					2024	0	0	0			0		
			2023	0	0	0			0				
The Equalizer. Copyright (c) 1999 - 2009. Licensed To: Township of Ypsilanti, County of Washtenaw, Michigan													

*** Information herein deemed reliable but not guaranteed***

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.												
WASHTENAW COUNTY TREASURE	Q260 LLC	7,000	10/24/2024	PTA	13-GOVERNMENT		PROPERTY TRANSFER	100.0												
SULLIVAN, ROBERT	HUDSON, STEFAN	2,000	02/28/2019	QC	21-NOT USED/OTHER	5293/323	PROPERTY TRANSFER	100.0												
WASHTENAW COUNTY TREASURE	SULLIVAN, ROBERT	1,000	09/12/2012	QC	21-NOT USED/OTHER	4933/11	PROPERTY TRANSFER	100.0												
MARTIN , MARK	MARTIN , MARK	1	01/10/2005	QC	21-NOT USED/OTHER	4455/551	PROPERTY TRANSFER	0.0												
Property Address		Class: RESIDENTIAL-VACAN		Zoning: R-5	Building Permit(s)		Date	Number	Status											
2184 ECORSE RD		School: YPSILANTI SD (WILLOW RUN DEBT)																		
		P.R.E. 0%																		
Owner's Name/Address		MAP #: R 011 038 00																		
Q260 LLC		2026 Est TCV 61,600																		
4860 WASHTENAW AVE 1-175																				
ANN ARBOR MI 48108		Improved	X	Vacant	Land Value Estimates for Land Table 00525.RES WR SCHLS SEC 2, 11 & 14 - 525															
		Public Improvements		* Factors *																
				Description	Frontage	Depth	Front Depth	Rate %Adj. Reason	Value											
				ACREAGE TABLE 'B'			0.880 Acres	70,000 100	61,600											
					0.88	Total Acres	Total Est. Land Value =		61,600											
Tax Description		Dirt Road Gravel Road Paved Road Storm Sewer Sidewalk Water Sewer Electric Gas Curb Street Lights Standard Utilities Underground Utils.																		
YP#11-35A LOT 23, UNRECORDED PLAT, DESC AS FOLLOWS, COM AT S 1/4 POST OF SEC, TH N 89 DEG 47' E 409.31 FT IN THE S LINE OF SEC, TH N 0 DEG 09' W 2307.32 FT, TH N 62 DEG 21' 45" E 552.37 FT FOR A PL OF BEG, TH N 62 DEG 21' 45" E 129.63 FT, TH S 0 DEG 09' E 361.30 FT, TH S 89 DEG 47' W 115 FT, TH N 0 DEG 09' W 301.60 FT TO THE PL OF BEG, EXC THE E 15 FT IN WIDTH THEREOF, BEING A PART OF W 1/2 OF SE 1/4 SEC. 11 T3S R7E.																				
Comments/Influences																				
		Topography of Site																		
		Level Rolling Low High Landscaped Swamp Wooded Pond Waterfront Ravine Wetland Flood Plain																		
												Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value		
												Who	When	What	2026	30,800	0	30,800		20,000C
															2025	30,800	0	30,800	20,000M	20,000S
															2024	30,800	0	30,800		17,782C
															2023	26,400	0	26,400		16,936C

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Licensed To: Township of Ypsilanti, County of Washtenaw, Michigan



Date: July 8, 2025

To: Debbie Swanson,
Ypsilanti Township Clerk

From: Brian McCleery,
Deputy Assessor

Subject: Memo Requesting Board of Trustee Authorization to Purchase
Properties from the 2025 Washtenaw County Tax Sale

2117 Nancy St

1555, 1655, 1540, 1520 Watson St

The Assessment Department recommends that the Board of Trustees authorize the purchase of the above lots from the 2025 Washtenaw County Treasurer's Tax Sale through the first right of refusal.

2117 Nancy St is part of the former Liberty Square and acquiring this property would leave just one additional property to obtain in order to proceed with the redevelopment of the property.

The Watson properties are a group of 4 parcels that are adjacent to Ypsilanti Township owned parcels. These properties as well as the Township Owned parcels are adjacent to 2574 State St whose owner is in negotiations with Ypsilanti Township to expand their property and bring the property into zoning compliance.

Attached is the 2025 Washtenaw County Tax Sale list, maps and property record cards for each property sale. Please let me know if there are any questions or further information is needed.



Washtenaw.org/Auction

List of Tax Foreclosed Properties
Auctions will start on 7/21/25 on Auction.com
Washtenaw County, Michigan

Please note: The Treasurer has the right to withdraw any property on this list prior to the auction. Please see our website for up-to-date information.
All bidding is done online. Please read the terms and conditions before bidding, found on washtenaw.org/auction.
All attempts were made for accuracy and proof-reading. Please report any errors you may find to taxes@washtenaw.org

Latitia Lamelle Sharp
"A Treasurer for the People"
Washtenaw County Treasurer

Phone: 734-222-6600
Fax: 734-222-6632
Email: taxes@washtenaw.org

Parcel Identification Number	Municipality	Address	Auction Date	2025 Assessed Value x 2**	Minimum Bid	Legal Description	AS IS, Known Disclosures
09-09-16-300-054	City of Ann Arbor	845 Wickfield Ct. Ann Arbor, 48105	7/21/2025	\$ 7,200	\$ 3,852	BEG AT NW COR OF LOT 8 OF STARWICK HEIGHTS NO. 2, TH N3 DEG 46' 20" W 50.0 FT, TH N 86 DEG 13' 40" E 71.08 FT, TH S 50.01 FT TO THE NE COR OF LOT 8, TH S 86 DEG 13' 40" W 72.0 FT TO PL OF BEG, BEING PART OF LOT 3, PLAT OF SURVEY OF SECTION 16, T2S-R6E. *OLD SID - I 09-205-012-00 AA 54-2K	Land-locked
09-09-16-300-057	City of Ann Arbor	859 Wickfield Ct. Ann Arbor, 48105	7/21/2025	\$ 6,600	\$ 3,789	BEG AT NE COR OF LOT 11 OF STAR- WICK HEIGHTS NO. 2, THN 50 FT IN THE NLY EXTENSION OF THE E LINE OF LOT 11, TH S 86 DEG 13' 40" W 55.02 FT TH S 50 FT TO THE NW COR OF LOT 11, TH N 86 DEG 13' 40" E 55.0 FT TO PL OF BEG, BEING PART OF LOT 3, PLAT OF SURVEY OF SECTION 16, T2S-R6E. *OLD SID - I 09-205-009-00 AA 54-2H	Land-locked
11-11-37-130-002	City of Ypsilanti	919 Monroe St. Ypsilanti, 48197	7/21/2025	\$ 43,200	\$ 45,092	*OLD SID - 11 11-475-396-00 YP CITY 48W-283 LOT 396 PARK RIDGE.	None available
11-11-39-465-023	City of Ypsilanti	546 First Ave. Ypsilanti, 48197	7/21/2025	\$ 27,200	\$ 5,972	*OLD SID - 11 11-120-074-10 YP CITY 14W-13 S 1/2 OF LOT 74 BARTHOLOMEW'S ADDITION.	None available
K -11-13-331-004 K -11-13-331-009 K -11-13-332-009 K -11-13-332-011	Ypsilanti Charter Township	1555 Watson St. 1655 Watson St. 1540 Watson St. 1520 Watson St. Ypsilanti, MI 48198	7/21/2025	\$ 52,400	\$ 7,506	YP#104-1483 LOT 1803 WATSONIA PARK SUBDIVISION. YP#104-1472: LOTS 1792 - 1794 INCL. WATSONIA PARK SUBDIVISION. YP#104-1492 LOTS 1812 - 1814 INCL. WATSONIA PARK SUBDIVISION. YP#104-1487: LOTS 1807 - 1808 INCL. WATSONIA PARK SUB, & S 10' OF VACATED ALLEY	Land-locked
K -11-24-111-005	Ypsilanti Charter Township	2117 Nancy St. Ypsilanti, 48198	7/21/2025	\$ 6,000	\$ 3,350	YP# 155-97 LOT 97 GROVE PARK HOMES.	Land-locked
T -20-11-200-005	Augusta Charter Township	9266 Willis Rd. Willis, 48191	7/21/2025	\$ 56,400	\$ 10,638	*OLD SID - T 20-011-024-00 AU 11-12B BEG AT NW COR OF E 1/2 OF NW1/4, TH S TO SW COR OF N 1/2 OF NE 1/4 OF NW 1/4, TH E 138 FT, TH N 633 FT, TH W 138 FT IN N LINE OF SEC TO PL OF BEG, BEING PART OF NE 1/4 OF NW 1/4 SEC 11 T4S-R7E 2.00 AC.	Soil Evaluation (2000)
T -20-33-200-009	Augusta Charter Township	7230 Arkona Rd. Milan, 48160	7/21/2025	\$ 183,000	\$ 18,248	*OLD SID - T 20-033-009-00 AU 33-7C COM AT NE COR OF W 1/2 OF NW1/4, TH S 88 DEG 34' W 80 FT IN N LINE OF SEC FOR PL OF BEG, TH S 88 DEG 34' W 80FT, TH S 88 DEG 21' E 360.30 FT TO CENT OF CREEK, TH NORTH 44 DEG 22' E 170 FT, TH N 21 DEG 26' WEST 72.65 FT, TH N 60 DEG 14' E 22 FT, TH N 86 DEG 12' E 123 FT, TH N 26 DEG 42' W 75.1 FT, TH N 29 DEG 32' E 47.67 FT, TH S 80 DEG 14' E 49.35 FT, TH N 31 DEG 55' E 127FT, TH N 52 DEG 28' E 38 FT, TH N 38 DEG 51' E 83 FT, TH N 57 DEG 38' E 84 FT, TH N 30 DEG 24' E 75 FT, TH S 89 DEG 15' W 685.8 FT, TH N 35.5 FT, TH W 80 FT, TH N 245 FT TO P.O.B.--NW 1/4 SEC 33 T4S-R7E 8.50 AC.	None available



LATITIA LAMELLE SHARP

"A Treasurer for the People"

WASHTENAW COUNTY TREASURER'S OFFICE

200 N. MAIN ST, STE 200, P.O. BOX 8645 ANN ARBOR, MI 48107-8645

PHONE: (734)222-6600 FAX: (734)222-6632

taxes@washtenaw.gov

Washtenaw.org/Treasurer

YPSILANTI TOWNSHIP

20 JUN 2025

LATITIA LAMELLE SHARP
TREASURER

June 2025

Dear Neighbor:

As the Washtenaw County Treasurer, I would like to make you aware of the opportunity to purchase property that may be adjacent to or near your property. This property has been foreclosed upon due to non-payment of taxes. As a neighbor, you may have a special interest in purchasing it as a buffer or for some other purpose. The sale will be by public auction to the highest bidder.

Properties will be sold at auction on July 21-23, 2025

Washtenaw.org/Auction

Enclosed you will find a flyer for the property we believe may be of interest to you. This information, along with other properties for sale, is also available online at

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We are contacting you because you are a neighbor to the property, and you may be particularly familiar with the property and its suitability. You may have an interest or perspective that an outside buyer would not have. You may be interested in bidding on the property simply because it is near your property.

We strongly encourage all bidders to conduct due diligence research on each property they are interested in to ensure it is suitable for their intended purpose. The County Register of Deeds, Equalization Department, and the local city/village/township assessors and planning offices are all good places to begin research. **All sales are "as is" and final.** Please consult the Terms and Conditions of Sale for additional details concerning the auction process, available on Washtenaw.org/auction.

If you have any questions concerning the auction process or have additional questions concerning the properties, please contact Jacco Gelderloos at 734-478-4331 or by email at gelderlj@washtenaw.org.

Sincerely,

Latitia Lamelle Sharp



Tax-Foreclosed Property Auction

Begins July 21, 2025 at [auction.com](https://www.auction.com)

**Property is sold as is & where is; purchasers release the Treasurer from all liability*

Ypsilanti, MI 48198

1555, 1655, 1540, 1520 WATSON ST



Minimum Bid: \$7,506

Parcel #: Watson St Bundle

Municipality: Charter Township of Ypsilanti

Acreage: 1.22

SEV (2024) x 2: \$54,400

Property Type: Residential

Legal:

YP#104-1483 LOT 1803 WATSONIA PARK SUBDIVISION.

YP#104-1472: LOTS 1792 - 1794 INCL. WATSONIA PARK SUBDIVISION.

YP#104-1492 LOTS 1812 - 1814 INCL. WATSONIA PARK SUBDIVISION.

YP#104-1487: LOTS 1807 - 1808 INCL. WATSONIA PARK SUB, & S 10' OF VACATED ALLEY

Disclosures: land-locked

Under provisions of The General Property Tax Act (Public Act 206 of 1893, as amended, MCL 211.1 to MCL 211.157) Washtenaw County Treasurer, Catherine McClary, as the Foreclosing Governmental Unit for Washtenaw County, offers for sale to the highest bidder property foreclosed for non-payment of taxes.

ONLINE PROPERTY AUCTION

Opens: July 21, 2025

Closes: July 23, 2025

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taxes@Washtenaw.org

**Read all Terms & Conditions carefully and thoroughly.*



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TREASURER

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taxes@washtenaw.gov Washtenaw.org/Treasurer

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The Treasurer does not guarantee the usability or access to any of these properties. It is the responsibility of prospective purchasers to do their own research as to the use of the properties for their intended purposes and to inspect properties personally to determine if they will be suitable for the purposes for which they are being purchased.

Helpful research sources may include: local city/township assessors, treasurers, and building departments; Washtenaw County Environmental Health, Water Resources, Road Commission, and Building Inspection.

Parcel ID: K -11-13-331-004, K -11-13-331-009, K -11-13-332-009, K -11-13-332-011

Property Address: 1555, 1655, 1540, & 1520 Watson St., Ypsilanti, MI 48198

Legal Description:

YP#104-1483 LOT 1803 WATSONIA PARK SUBDIVISION.

YP#104-1472: LOTS 1792 - 1794 INCL. WATSONIA PARK SUBDIVISION.

YP#104-1492 LOTS 1812 - 1814 INCL. WATSONIA PARK SUBDIVISION.

YP#104-1487: LOTS 1807 - 1808 INCL. WATSONIA PARK SUB, & S 10' OF VACATED ALLEY

The following information has been provided to the Treasurer concerning the above property and is available online at Washtenaw.org/Auction:

❖ **land-locked**



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Ypsilanti, MI 48198

2117 NANCY ST



Parcel #: K -11-24-111-005

Municipality: Charter Township of Ypsilanti

Acreage: 0

SEV (2024) x 2: \$6,000

Property Type: Residential

Legal: YP# 155-97 LOT 97 GROVE PARK HOMES.

Disclosures: land-locked

Minimum Bid: \$3,350

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Parcel ID: K -11-24-111-005

Property Address: 2117 Nancy St, Ypsilanti, MI 48198

Legal Description: YP# 155-97 LOT 97 GROVE PARK HOMES.

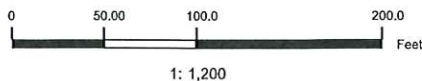
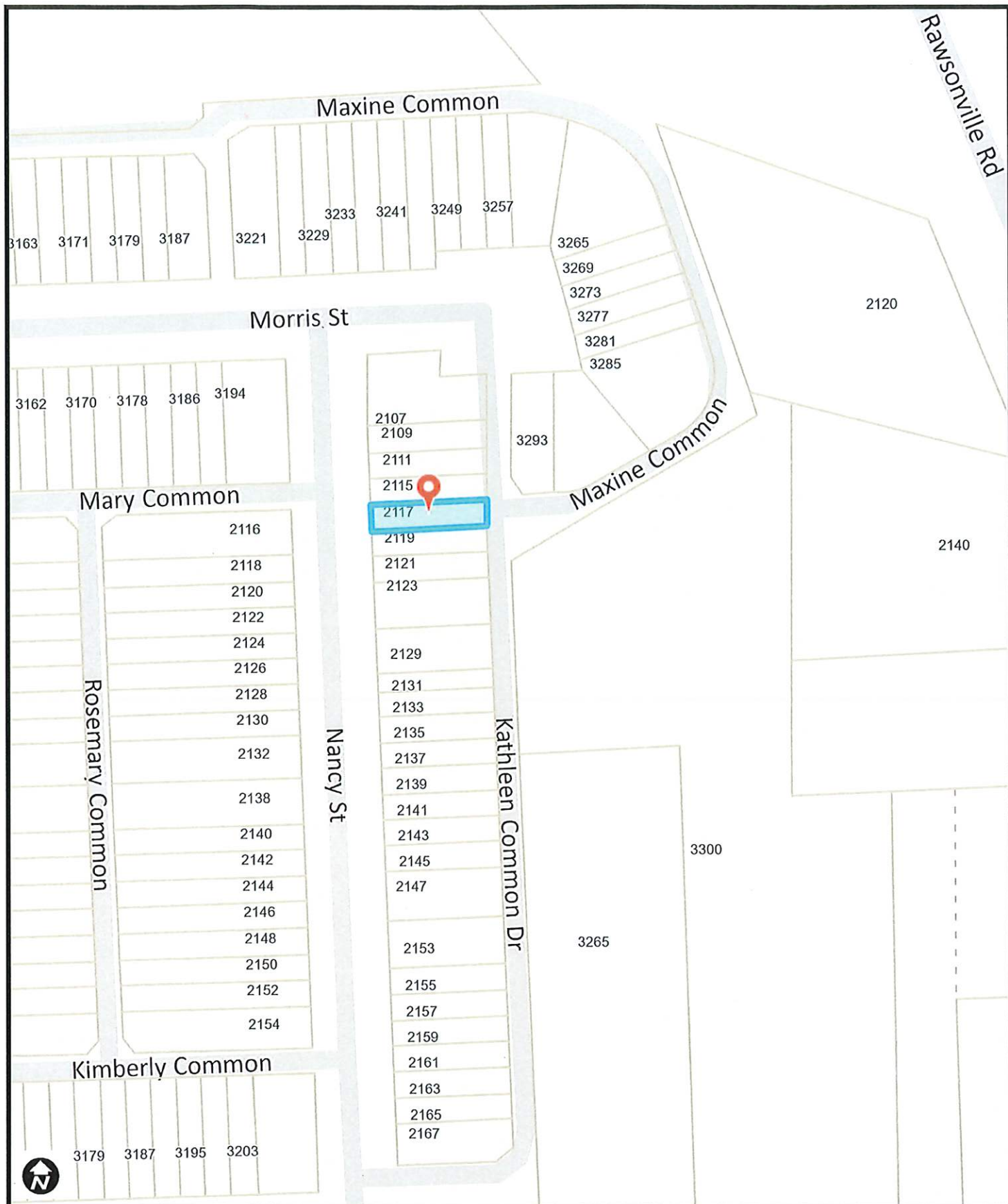
The following information has been provided to the Treasurer concerning the above property and is available online at Washtenaw.org/Auction:

❖ **land-locked**

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prct. Trans.
Property Address	Class: RESIDENTIAL-VACAN	Zoning: RM-LD	Building Permit(s)	Date	Number	Status		
2117 NANCY ST	School: VAN BUREN PUB SCHOOLS							
	P.R.E. 0%							
Owner's Name/Address	MAP #: R 245 097 00							
HARDRICK, DELORES GROVE PARK HOMES PO BOX 263 GRASS LAKE MI 49240	2026 Est TCV Tentative							
	Improved	X	Vacant	Land Value Estimates for Land Table 00555.RES VB SCHLS SEC 24 - 555				
	Public Improvements			* Factors *				
	Dirt Road			Description	Frontage	Depth	Front	Depth
	Gravel Road			<Site Value A> PER UNIT	6000	100		
	Paved Road			20 Actual Front Feet, 0.04 Total Acres	Total Est. Land Value =			Value
	Storm Sewer							6,000
	Sidewalk							6,000
	Water			Land Improvement Cost Estimates				
	Sewer			Description	Rate	Size	% Good	Cash Value
	Electric			Residential Local Cost Land Improvements				
	Gas			Description	Rate	Size	% Good	Cash Value
	Curb				0.00	20580	77	0
	Street Lights			Total Estimated Land Improvements True Cash Value =				
	Standard Utilities							0
	Underground Utils.							
	Topography of Site							
	Level							
	Rolling							
	Low							
	High							
	Landsaped							
	Swamp							
	Wooded							
	Pond							
	Waterfront							
	Ravine							
	Wetland							
	Flood Plain							
	Who	When	What	Year	Land Value	Building Value	Assessed Value	Board of Review
				2026	Tentative	Tentative	Tentative	Tribunal/ Other
				2025	3,000	0	3,000	Taxable Value
				2024	3,000	0	3,000	1,546C
				2023	3,000	0	3,000	1,500C
								1,429C

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Licensed To: Township of Ypsilanti, County
of Washtenaw, Michigan

*** Information herein deemed reliable but not guaranteed***



6/18/2025



NOTE: Parcels may not be to scale.

The information contained in this cadastral map is used to locate, identify and inventory parcels of land in Washtenaw County for appraisal and taxing purposes only and is not to be construed as a "survey description". The information is provided with the understanding that the conclusions drawn from such information are solely the responsibility of the user. Any assumption of legal status of this data is hereby disclaimed.

Parcel Number: K -11-13-331-004

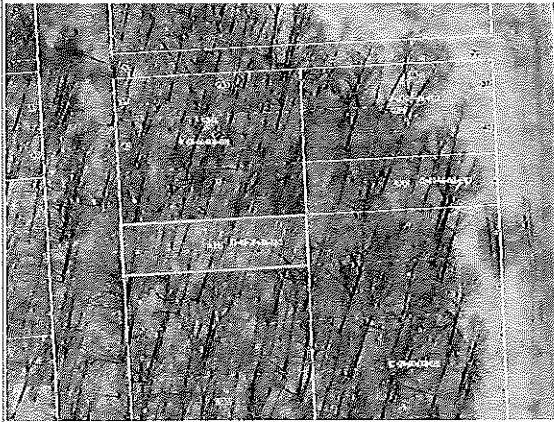
Jurisdiction: YPSILANTI TOWNSHIP

County: WASHTENAW

Printed on

06/18/2025

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prct. Trans.
WITHROW, BASIL A	DINGMAN, MELBA V	0	03/23/2011	WD	21-NOT USED/OTHER	4845/517	PROPERTY TRANSFER	0.0
Property Address		Class: INDUSTRIAL-VACANT		Zoning: I-C	Building Permit(s)	Date	Number	Status
1555 WATSON ST		School: VAN BUREN PUB SCHOOLS						
Owner's Name/Address		P.R.E. 0%						
SMITH, MELBA V. 1900 W ALPHA CT APT 201 LECANTO FL 34461		MAP #: R 585 643 00						
Tax Description		2026 Est TCV Tentative						
YP#104-1483 LOT 1803 WATSONIA PARK SUBDIVISION. Comments/Influences		Improved	X	Vacant	Land Value Estimates for Land Table 00300.INDUST THROUGH OUT TWP - 300			
		Public Improvements		* Factors *				
		Dirt Road		Description	Frontage	Depth	Front Depth	Rate %Adj. Reason Value
		Gravel Road		INDUSTRIAL:				0.133 Acres 57,696 75 PARCEL IS LANDLOCKED WITH
		Paved Road						0.13 Total Acres Total Est. Land Value = 5,755
		Storm Sewer						
		Sidewalk						
		Water						
		Sewer						
		Electric						
		Gas						
		Curb						
		Street Lights						
		X	Standard Utilities					
		Underground Utils.						
		Topography of Site						
		X	Level					
		Rolling						
		Low						
		High						
		Landscaped						
		Swamp						
		Wooded						
		Pond						
		Waterfront						
		Ravine						
		Wetland						
		Flood Plain						
		Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value
		2026	Tentative	Tentative	Tentative			Tentative
Who When What		2025	2,800	0	2,800			937C
DJD 08/15/2001 EXTERIOR R		2024	2,700	0	2,700			909C
		2023	2,700	0	2,700			866C



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06/18/2025

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prct. Trans.						
WITHROW, BASIL A	DINGMAN, MELBA V	0	03/23/2011	PTA	21-NOT USED/OTHER		PROPERTY TRANSFER	0.0						
Property Address		Class: INDUSTRIAL-VACANT	Zoning: I-C	Building Permit(s)		Date	Number	Status						
1655 WATSON ST		School: VAN BUREN PUB SCHOOLS												
Owner's Name/Address		P.R.E. 0%												
SMITH, MELBA V. 1900 W ALPHA CT APT 201 LECANTO FL 34461		MAP #: R 585 638 00												
Tax Description		2026 Est TCV Tentative												
YP#104-1472: LOTS 1792 - 1794 INCL. WATSONIA PARK SUBDIVISION. Comments/Influences		Improved	X Vacant	Land Value Estimates for Land Table 00300.INDUST THROUGH OUT TWP - 300										
		Public Improvements		* Factors *										
		Dirt Road		Description	Frontage	Depth	Front	Depth	Rate %Adj.	Reason	Value			
		Gravel Road		<Site Value A>							0			
		Paved Road		INDUSTRIAL:							0.399 Acres	57,696	75	PARCEL IS LAND LOCKED WITH
		Storm Sewer		120 Actual Front Feet, 0.40 Total Acres							Total Est. Land Value =	17,266		
		Sidewalk												
		Water												
		Sewer												
		Electric												
		Gas												
		Curb												
		Street Lights												
		X	Standard Utilities											
		Underground Utils.												
		Topography of Site												
		X	Level											
		Rolling												
		Low												
		High												
		Landscaped												
		Swamp												
		Wooded												
		Pond												
		Waterfront												
		Ravine												
		Wetland												
		Flood Plain												
		Who	When	What	Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value			
		DJD	08/15/2001	EXTERIOR R	2026	Tentative	Tentative	Tentative			Tentative			
					2025	8,400	0	8,400			4,2410			
					2024	8,100	0	8,100			4,1140			
					2023	8,000	0	8,000			3,9190			
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Parcel Number: K -11-13-332-009

Jurisdiction: YPSILANTI TOWNSHIP

County: WASHTENAW

Printed on

06/18/2025

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.		
WITHROW, BASIL A	DINGMAN, MELBA V	0	03/23/2011	PTA	21-NOT USED/OTHER		PROPERTY TRANSFER	0.0		
Property Address										
1540 WATSON ST		Class: COMMERCIAL-VACANT		Zoning: I-C		Building Permit(s)		Status		
		School: VAN BUREN PUB SCHOOLS								
		P.R.E. 0%								
Owner's Name/Address		MAP #: R 585 648 00								
SMITH, MELBA V. 1900 W ALPHA CT APT 201 LECANTO FL 34461		2026 Est TCV Tentative								
		Improved	X	Vacant	Land Value Estimates for Land Table 00210.COMM EAST SIDE - 210					
		Public Improvements			* Factors *					
					Description	Frontage	Depth	Front Depth	Rate %Adj. Reason	Value
						120.00	0.00	1.0000 1.0000	0 100	0
					EAST SIDE COMMERCIAL 0.399 Acres 87,562 50 LAND LOCKED WITH NO ACCESS					
					120 Actual Front Feet, 0.40 Total Acres Total Est. Land Value = 17,469					
Tax Description										
YP#104-1492 LOTS 1812 - 1814 INCL. WATSONIA PARK SUBDIVISION.		X								
Comments/Influences		X								
		Dirt Road								
		Gravel Road								
		Paved Road								
		Storm Sewer								
		Sidewalk								
		Water								
		Sewer								
		Electric								
		Gas								
		Curb								
		Street Lights								
		X Standard Utilities								
		Underground Utils.								
		Topography of Site								
		X Level								
		Rolling								
		Low								
		High								
		Landscaped								
		Swamp								
		Wooded								
		Pond								
		Waterfront								
		Ravine								
		Wetland								
		Flood Plain								
		Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value		
		2026	Tentative	Tentative	Tentative			Tentative		
Who When What		2025	8,700	0	8,700			3,002C		
DJD 08/29/2001 EXTERIOR R		2024	9,500	0	9,500			2,912C		
		2023	9,400	0	9,400			2,774C		



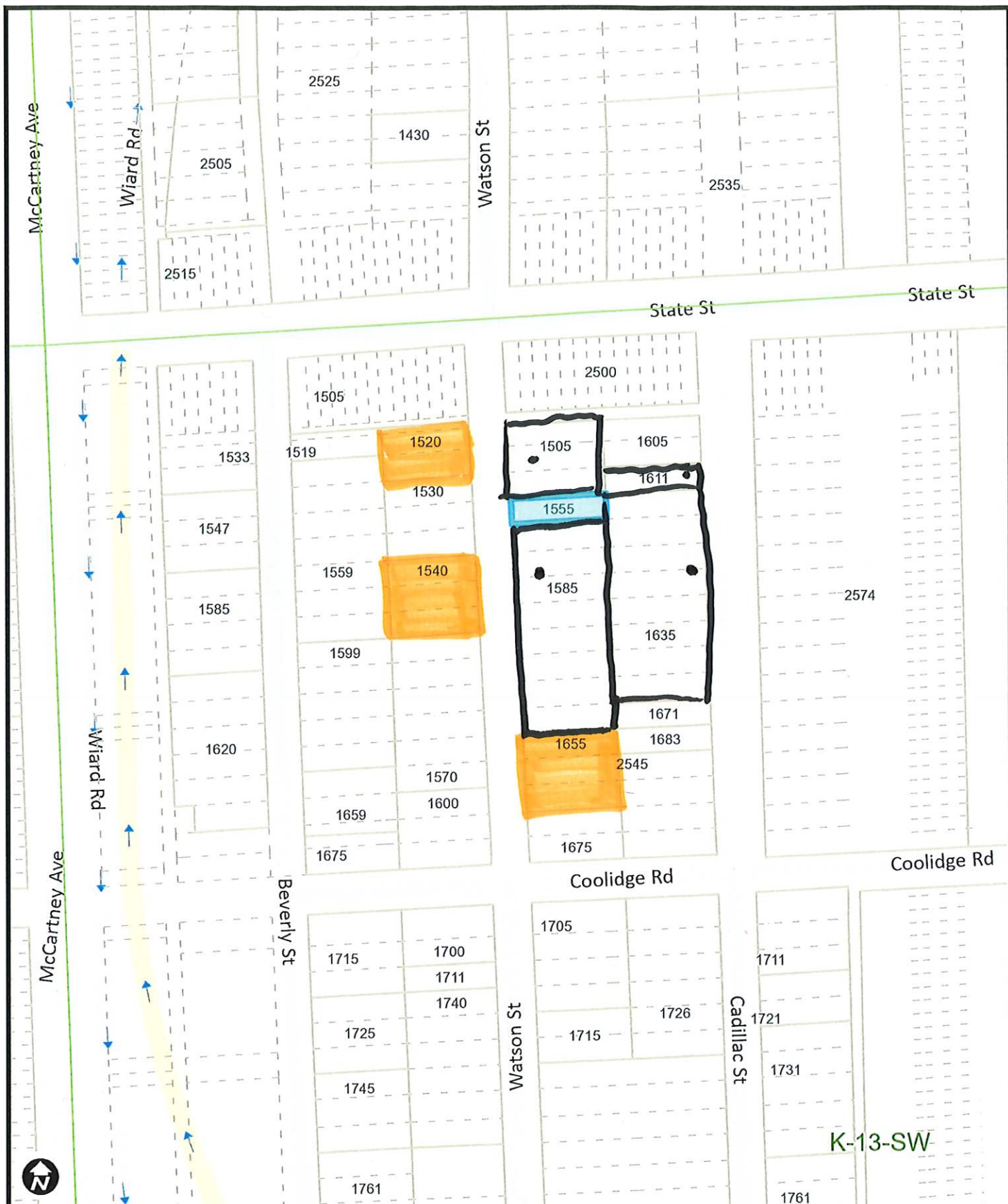
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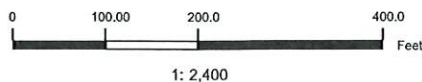
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		School: VAN BUREN PUB SCHOOLS						Number
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Owner's Name/Address		MAP #: R 585 646 00						
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		Public Improvements			* Factors *			
Tax Description		Description			Frontage	Depth	Front	Depth
YP#104-1487: LOTS 1807 - 1808 INCL. WATSONIA PARK SUB, & S 10' OF VACATED ALLEY		Dirt Road			87.00	0.00	1.0000	1.0000
Comments/Influences		Gravel Road					Rate	%Adj.
CHANGED ADDRESS BASED ON RETURNED ASSESSMENT NOTICE. 2-28-12 DLS		Paved Road					0	100
		Storm Sewer					Reason	Value
		Sidewalk					LAND LOCKED WITH NO ACCESS	0
		Water					87 Actual Front Feet, 0.29 Total Acres	
		Sewer					Total Est. Land Value =	12,696
		Electric						
		Gas						
		Curb						
		Street Lights						
		Standard Utilities						
		Underground Utils.						
		Topography of Site						
		X Level						
		Rolling						
		Low						
		High						
		Landscaped						
		Swamp						
		Wooded						
		Pond						
		Waterfront						
		Ravine						
		Wetland						
		Flood Plain						
		Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value
Who	When	What	2026	Tentative	Tentative	Tentative		Tentative
DJD	08/29/2001	EXTERIOR R	2025	6,300	0	6,300		2,491C
			2024	6,900	0	6,900		2,417C
			2023	6,900	0	6,900		2,302C



The Equalizer. Copyright (c) 1999 - 2009.
Licensed To: Township of Ypsilanti, County of Washtenaw, Michigan



K-13-SW



NOTE: Parcels may not be to scale.

The information contained in this cadastral map is used to locate, identify and inventory parcels of land in Washtenaw County for appraisal and taxing purposes only and is not to be construed as a "survey description". The information is provided with the understanding that the conclusions drawn from such information are solely the responsibility of the user. Any assumption of legal status of this data is hereby disclaimed.



MEMORANDUM

To: Charter Township of Ypsilanti Board of Trustees

From: Will Turner, Golf Course Superintendent

CC: John Hines, Municipal Services Director

Date: July 8, 2025

RE: **Request to waive the portion of the financial policy that requires to post to MITN and approve Cribley Drilling for the new electrical installation for Well #8 at the Green Oaks Golf Course in the amount of \$20,878.00 from budget line 584-784-931.022, contingent on Line Item Transfer.**

The Residential Services Department and Green Oaks Golf Course is requesting to waive the portion of the financial policy that requires to post to MITN and approve Cribley Drilling for the new electrical installation for Well #8 at the Green Oaks Golf Course in the amount of \$20,878.00 from budget line 584-784-931.022, contingent on Line Item Transfer.

At the May 20, 2025 Board of Trustees, the board approved the replacement of Well #8 due to it's failure. While replacing the unit, Cribley confirmed that the existing 3-phase power wire is faulty, necessitating a replacement to ensure reliable operation. They recommend installing a new 3-phase power wire via directional bore to ensure it's operation. Directional Boring will limit the disruption of the course. This method, spanning 558 feet in a 2-inch conduit, minimizes restoration costs and significantly reduces the risk of damaging existing irrigation pipes and electrical wires.

The request to waiver of the financial policy's bid process is due to Cribley being the preferred vendor for this work and is prepared to start immediately. This will ensuring swift restoration of the well system.

Sincerely,
Will Turner
Green Oaks Golf Course Superintendent



CRIBLEY DRILLING CO., INC.

8300 DEXTER-CHELSEA ROAD
DEXTER, MI 48130-9786
734-426-4400 • 1-800-628-9355 • FAX 734-426-4414
www.cribley.com



June 23, 2025

DATE

SOLD TO

OWNER'S NAME AND ADDRESS

GREEN OAKS GOLF COURSE
1775 E. CLARK RD.
YPSILANTI, MI.
WILL TURNER 734-664-7342: 734-485-0881
WTURNER@YPSITOWNSHIP.ORG

PUMP REPLACEMENT
1775 E. CLARK RD.
YPSILANTI, MI.

Phone: Work _____

Home _____

QTY	DESCRIPTION	PRICE	AMOUNT	TOTAL
Materials				
1800	FT. (MORE OR LESS) OF 1/0 AWG COPPER THHN WIRE	\$3.20	\$5,760.00	
600	FT. (MORE OR LESS) OF 1 AWG COPPER THHN WIRE	\$2.60	\$1,560.00	
	POLARIS ELECTRICAL CONNECTORS	\$200.00	\$200.00	
1	MISC. ELECTRICAL FITTINGS (MORE OR LESS)	\$500.00	\$500.00	
1	UNISTRUT (MORE OR LESS)	\$500.00	\$500.00	
Total estimated materials (more or less)			\$8,520.00	\$8,520.00
Trenching & underground pipe is an estimated distance only				
Labor				
1	DIRECTIONAL DRILL	\$8,108.00	\$8,108.00	
1	FIRST HOUR LABOR (MORE OR LESS) WITH BACKHOE	\$500.00	\$500.00	
10	HRS. LABOR (MORE OR LESS) TO FINISH INSTALLING WELL SYSTEM	\$375.00	\$3,750.00	
Total estimated labor (more or less)			\$12,358.00	\$12,358.00
Total estimated (more or less)				\$20,878.00

Estimate to be signed prior to any work started/scheduled

We do require a deposit of \$10,000.00 before any work can begin OR a P.O.

* If a powerline drop is necessary, any additional charges will be at the expense of other than Cribley Drilling Co., Inc. and will require a document giving permission to the power utility company by the utility owner.

* Note: This estimate is given site unseen and does not represent any difficult site conditions that may exist.

* Note: site conditions may require add'l time and equipment to move truck on site. Any time/equipment used to get truck on site will be at an add'l charge. Site restoration costs not included.

* Note: Cribley Drilling Co., Inc. will not be held responsible for any underground infrastructure that is not marked by MISS DIG or other than Cribley Drilling Co., Inc.

If you have any questions or to schedule, please contact the office 734-426-4720

service@cribley.com

Accepted by (sign and print name) _____

Date: _____

Please sign all pages

Bills not paid within 30 days begin to accrue interest at the rate of 1.5% per month (equivalent to 18% per year). For your convenience, we accept Visa and MasterCard.

Payment by credit card can be arranged by phone.

Credit card transactions will be charged a 3% processing fee

June 23, 2025

GREEN OAKS GOLF COURSE
1775 E. CLARK RD.
YPSILANTI, MI.
WILL TURNER 734-664-7342: 734-485-0881
WTURNER@YPSITOWNSHIP.ORG

PUMP REPLACEMENT
1775 E. CLARK RD.
YPSILANTI, MI.

**** If your well is hooked up/completed during the winter months, there may be additional charges due to digging in the frost. Those charges would be added to your invoice.

Cribley Drilling Co., Inc. accepts no responsibility regarding the well location. It is solely the customer's (person signing the estimate/contract) responsibility to locate the well in correct terms of proper distance to contamination sources, buildings, lot lines, etc...

We recommend "mud vacuum" especially for replacement wells. This service will eliminate most of the mud/water mess associated with the drilling process. Cost for 1st load (1400 gals or less) is \$1200.00 add \$300 for each additional load thereafter.

While working on this project, Cribley Drilling will not be held responsible for damage to: asphalt or cement surfaces, sidewalks, and/or driveways while entering, leaving or moving equipment over these areas. Also we will not be held responsible for irrigation systems, lawns, trees, landscaping and shrubs/plantings. Not responsible for carpeting, wood flooring, or any damage inside while we are installing the pressure tank & fittings. If you would like to put down temporary floor coverings before we enter, that is recommended to limit damage to interior floor surfaces.

☐ Yes, I want Option to place/remove plywood into/out of job site Usually 2-3 hrs
@ \$170/hour (could be more than 2-3 hrs)

☐ Yes, I want Silt fence placement/removal Usually 1-2 hrs @ \$170/hour

☐ Yes, I want Mud Vacuum service (first load \$1200) second load if needed @ \$300 usually only one load is needed

We do not guarantee that you will get water that is free of coliform, arsenic, nitrates, tannin or any other substance that flows freely below ground.

Cribley Drilling Co., Inc., is required to be registered according to the Michigan Dept of Environmental Quality. All work will be performed under one of the following Registration Numbers: 81-2014, 81-1872 or 81-0524

Prices include material and labor. Any deviation from these charges involving extra material or labor will become an additional charge. These prices allow for general clean up of a site, NOT restoration to pre-drilling condition. Effort is made to minimize the disruption caused by heavy equipment but some disruption of grass and landscaping will occur and restoration of same is not included in the prices quoted herein. Trenching and backfill charges do not include restoration to original condition.

Acceptance of this estimate constitutes an acknowledgement that client will pay all bills in full within 30 days after billing unless prior arrangements have been made with Cribley Drilling Co., Inc. Bills not paid in 30 days will begin to accrue service charges of \$5.00 or 1 1/2 % per month, whichever is greater, and client hereby agrees to pay said service charges. If Cribley Drilling Co., Inc., finds it necessary to file a construction lien or any other legal action or collection against the owner or the property for non-payment of charges due, the customer agrees to pay any and all fees and costs incurred. (Including court costs, attorney fees and costs incurred by Cribley Drilling Co., Inc., collection agency fees or costs) All material remains the property of Cribley Drilling Co., Inc. until the bill is paid in full and client agrees Cribley may reclaim equipment not paid for as agreed herein. Cribley Drilling Co., Inc. warranty issued only upon full payment of all bills.

Accepted by (sign and print name)

Date:

Please sign all pages

Page 2 of 2



To: Charter Township of Ypsilanti Board of Trustees
McLain & Winters, Township Legal Counsel

From: Belinda Kingsley, Community Compliance Director

Re: **Junkyard Licenses - 2025**

Date: July 9, 2025

There are currently eight junkyard locations, utilizing ten parcels in Ypsilanti Township. One business, G&D Auto Salvage at 2355 Wiard Ct, is not currently operating due to ongoing Circuit Court litigation regarding violations of the junkyard ordinance, but desires to re-establish the business when the legal action is concluded.

A second business, Holbrook Auto Parts at 2574 State St, is currently in litigation with the Township regarding violations of the Building Code. A pole barn structure was constructed in violation of the Zoning Ordinance and the Building Code. They have continued to operate the junkyard business while in litigation, however, recommendation to issue a license to them currently is not being requested.

A third business, located at 2835 Coolidge, was in protracted litigation with the Township. The property was sold recently and has been brought into compliance, resulting in dismissal of the litigation. Extensive clean up of the property, along with the installation of a new well and septic system has been performed by the new owner Sky Holdings Group.

Junkyard inspections were temporarily discontinued during COVID, and due to various department priorities restarting the process was delayed, however, the Office of Community Standards has consistently been responsive to violations identified and/or complaints received regarding the operations of these businesses. A junkyard/recycling business, FPT Ypsi Land located at 2220 E Michigan Ave, that had previously been licensed by the Township ceased operation in 2020. The closure of this legal non-conforming business was documented in the Office of Community Standards records to cease the continuation of the junkyard use, based on Zoning Map updates in 2022.

Between June 10 and July 8, 2025, the seven junkyard businesses currently operating, and the parcels of property they occupy, were inspected by Fire Marshall Steve Walgren, Ordinance Administrator Bob Kelch and Community Compliance Director Belinda Kingsley, to determine compliance with Township Ordinances. Apart from Holbrook Auto Parts at 2574 State St, all business successfully passed their inspection.

As part of the inspection process, active State of Michigan licenses were confirmed to be posted inside the businesses. The State of Michigan issues several classes of licenses to junkyards, with the approval of the Township, to perform a variety of operations such as Used Vehicle Parts Dealer (Class C), Automotive Recycler (Class R), Vehicle Scrap Metal Processor (Class F), Distressed Vehicle Transporter (Class E) and Vehicle Dealer (Class B). The inspection process also includes verifying that the business maintains a log book of vehicle purchases and dispositions, a fence sufficiently screens the storage area from the view of adjacent property owners, the hours of operation are consistent with the ordinance and the premises are safe to occupy from a Fire and Building Code perspective.

The Junkyard Ordinance requires that the property taxes be current, or in a payment plan with the Washtenaw County Treasurer's Office. The Ypsilanti Township Treasurer's office has confirmed that with one exception, all taxes are either paid or have been transferred to the County. B&G Auto Salvage has been notified of an outstanding personal property tax from 2019 that should be resolved promptly.

Recommendations:

The Office of Community Standards recommends Township Junkyard License approval for the following six businesses, located on eight parcels:

- | | |
|---------------------------------|--------------------------|
| 1. B&G Auto Salvage | 1711 Cadillac Ave |
| 2. B&G Auto Salvage | 1724 Woodale Ave |
| 3. AAA Parts | 2260/2280 E Michigan Ave |
| 4. East Michigan Ave Auto Parts | 2490/2494 E Michigan Ave |
| 5. A&M Auto Parts | 2600 Coolidge Ave |
| 6. Sky Holdings Group | 2835 Coolidge Ave |

The Office of Community Standards recommends **not** issuing Township Junkyard Licenses to the following two businesses until the issues resulting in litigation have been resolved:

- | | |
|------------------------|----------------|
| 1. Holbrook Auto Parts | 2575 State St |
| 2. G&D Auto Salvage | 2355 Wiard Ct. |

Thank you for your consideration of this request.

Address	Parcel Number	Name Responsible Party	Business Name
1711 CADILLAC AVE	K-11-13-350-001	RUSSELL GEORGE BUFORD SINGLETON	B & G AUTO SALVAGE LLC
1724 WOODALE AVE	K-11-13-309-007	GEORGE & SHARON SINGLETON	B & G AUTO SALVAGE LLC
2260 E MICHIGAN AVE	K-11-02-480-003	NABIL SALAMEY	AAA PARTS LLC
2280 E MICHIGAN AVE	K-11-02-480-002	NABIL SALAMEY	AAA PARTS LLC
2355 WIARD CT	K-11-02-481-001	MELVIN LEWIS	G&D AUTO SALVAGE
2490 E MICHIGAN AVE	K-11-01-300-020	NABIL SALAMEY	EAST MICHIGAN AVE AUTO PARTS LLC
2494 E MICHIGAN AVE	K-11-01-300-021	BILLY SALAMEY	EAST MICHIGAN AVE AUTO PARTS LLC
2574 STATE ST	K-11-13-330-006	THOMAS S POUILLATH	HOLBROOK AUTO PARTS
2600 COOLIDGE AVE	K-11-13-309-001	AMAL (MIKE) TAHHAN	A & M AUTO PARTS LLC
2835 COOLIDGE AVE	K-11-13-305-004	AJ FURRHA	SKY HOLDINGS GROUP LLC

Township Supervisor
Brenda L. Stumbo
Township Clerk
Debbie Swanson
Township Treasurer
Stan Eldridge



**YPSILANTI
TOWNSHIP**
— WHERE YOUR FUTURE GROWS —

Trustees
Karen Lovejoy Roe
John Newman II
Gloria Peterson
LaResha Thornton

To: Charter Township of Ypsilanti Board of Trustees

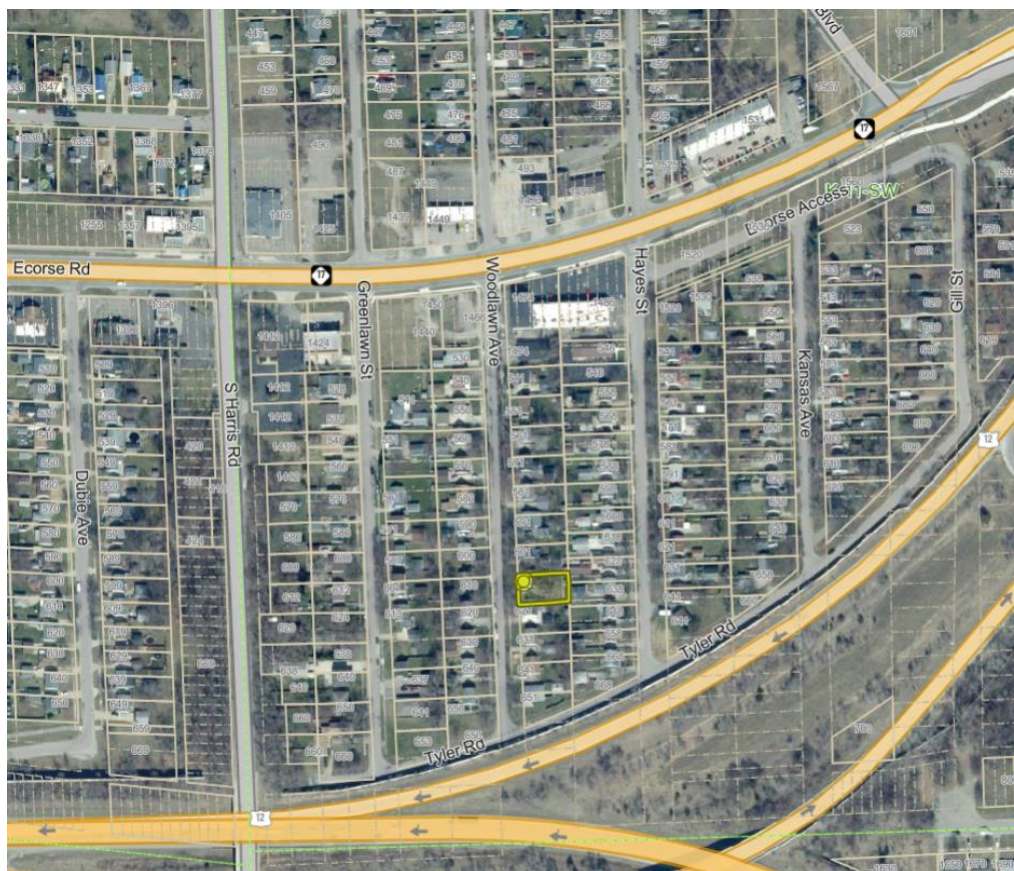
From: Belinda Kingsley, Community Compliance Director

Re: **Request authorization to initiate Circuit Court litigation to abate a public nuisance violation at a property identified as 611 Woodlawn Ave; funded in account 101-729-801.023.**

Date: July 10, 2025

The Washtenaw County Sheriff's Office and the Ypsilanti Township Ordinance Department have investigated a public nuisance situation at 611 Woodlawn Ave. Authorization by the Board of Trustees is requested to abate said public nuisance by initiating Circuit Court litigation.

611 Woodlawn



The property identified as 611 Woodlawn Ave is owned by Karessa Hullinger, who resides in Grass Lake, MI. The current owner purchased the property in 2006 and currently utilizes it as a rental property.

The Washtenaw County Sheriff's Office has received 58 documented calls for service to this property between May 2021 and June 2025. A miniscule example of the calls for service include:

- Aggravated/Felonious Assault - arising out of an incident involving a resident pointing a gun at a neighborhood child.
- Disorderly Person – different subjects pointing guns at each other and uncooperative with WCSO.
- Intimidation – Threats to shoot a neighborhood child.
- Concealed Weapons and Resisting Officer – arrest for weapons and drugs.
- Arson – unknown person attempted to set house on fire.
- Aggravated Felony Assault – Murder attempt – Domestic violence and multiple apartments shot.
- Weapons, Firing Gun (Careless, Reckless, Needless Use) – Drive by shooting in the street.

There is an established pattern of gun violence, intimidation, sexual violence, assaults against family and deputies, drug use, and many more other crimes occurring at this property.

In addition to the criminal activity occurring at 611 Woodlawn the Ordinance Department has received numerous complaints regarding the condition of the property. The complaints include overgrown grass/weeds, trash in the yard and driveway, inoperable vehicles, damaged overhead garage door, dog feces and old furniture stored outdoors. Although the property is currently a certified rental, the most recent inspection in 2024 required repairs to be performed prior to certification. The inspection identified doors with holes punched in them, flooring to be replaced, rotten wood and broken railings on back porch, among other minor deficiencies.

The property owner has a history of resolving ordinance and rental issues that are identified, but the continual cycle of citing the violations and returning for inspections to confirm completion is a drain on the resources of the Ordinance Department, just as the constant calls for service to WCSO is a drain on their resources.

The Township is seeking a Court Order to abate the nuisance situation that exists at 611 Woodlawn and padlock the rental unit for one year, and requests authorization from the Board of Trustees to initiate litigation in Washtenaw Circuit Court. Thank you for your consideration and your continued support for our public nuisance abatement efforts.







MEMORANDUM

To: Charter Township Board of Trustees

From: Brenda L. Stumbo, Township Supervisor
Debbie Swanson, Township Clerk
Stan Eldridge, Township Treasurer

Date: July 9, 2025

RE: Request to approve and fill the vacant Human Resource Director position, along with the attached job description and salary range. The posting shall list a salary range of \$95,000 to \$105,000, will come from a budget amendment in line # 101-270-705.000

Based on the pending retirement of the current Human Resource Manager in October of 2025, after 34 years of dedicated service, the full-time officials met and evaluated the position. Based upon the relevant duties, and in reviewing similar positions in other municipalities, a change in the current Human Resource Manager job title is recommended, with the title change restoring the vacant Human Resource Director position.

An immediate posting will allow for a proper and diligent process, with an anticipated start date for the selected applicant of September 2nd.

The salary range being recommended is in line with a review of other municipalities. There will also be funding included to provide for a training period, where the current Human Resource Manager will assist in the training of the newly selected Human Resource Director.

We welcome the input and suggestions of the Board of Trustee members. Upon approval of the Board of Trustees, the position will be immediately posted.

An attachment to this proposal has been included for your review.



**YPSILANTI
TOWNSHIP**
— WHERE YOUR FUTURE GROWS —

DIRECTOR OF HUMAN RESOURCES

Department: Human Resources

Supervised by: Township Supervisor

Supervision: HR Generalist, HR Specialist (PT), & I.T. Department, & additional personnel as assigned

FLSA Status: Exempt

Position Type: Full-Time, Non-Union

Position Summary:

The Charter Township of Ypsilanti is a family-oriented community of over 50,000 residents located on the eastern edge of Washtenaw County. The Director of Human Resources, under the general direction of the Township Supervisor, or their specified designee, directs, manages, and coordinates, the human resources and risk management activities for all Township departments, including the Fire Department as well as Parks & Recreation. Responsibilities include recruitment, selection, classification and compensation, benefits administration, workers' compensation, risk management insurance programs, training, employee relations, labor contract administration and negotiations, and employee safety and wellness. Maintains confidentiality of sensitive and/or personal information. Provides leadership around such initiatives as identifying cost efficiencies across departments.

Essential Job Functions:

An employee in this position may be called upon to do any, or all, of the following essential functions. These examples do not include all of the duties which the employee may be expected to perform. To perform this job successfully, an individual must be able to perform each essential function satisfactorily.

1. The ideal candidate will work under the direction of the Township Supervisor, in collaboration with the other full-time elected officials, and other department directors, in creating a township culture that is collaborative, team and service-oriented by creating, recruiting, selecting, orienting and putting into place human resources systems that will instill an attitude of service-oriented performance throughout the organization.
2. Regularly meets with the Township Supervisor to discuss the status of current activities, reports, and upcoming projects.
3. Ensures compliance with all state and federal laws and Township ordinances, policies and procedures related to human resources. Maintains necessary records and information, analyzes data, compiles reports required by regulatory agencies and Township administration.
4. Provides advice and information to Elected Officials, Department Heads, and employees related to employment issues, policies, and procedures.



YPSILANTI TOWNSHIP

— WHERE YOUR FUTURE GROWS —

5. Defines, implements, and administers the employee compensation program. Shall oversee the payroll development, leave time accruals, and benefits programs. Conducts and/or coordinates surveys and job analyses to develop job descriptions and pay ranges. Updates and maintains the Township's wage ranges and benefits.
6. Administers employee insurance and retirement contracts, including worker's compensation, unemployment, health, life and disability insurance, deferred compensation and defined benefit retirement programs. Serves as the liaison with providers and maintains agreements.
7. Serves as a member of the Township's collective bargaining team. Proposes and completes the drafts of contract language, and studies and reports on the potential cost and service impacts of proposed provisions. Administers all collective bargaining agreements and employee contracts.
8. Manages and leads the selection, recruitment, hiring, discipline and discharge processes of Township employees. Shall oversee recruitment advertising, application reviews, interviews, selection processes, and background checks on applicants. Shall oversee the proper maintenance and access to personnel files.
9. Oversees staff training programs. Will ensure employees are properly trained to perform their jobs professionally and safely. Investigates incidents and injuries, and coordinates physical inspections to identify potential liabilities.
10. Serves on special committees and participates in civic, and professional organizations as assigned.
11. When directed by the Township Supervisor, acts as a community liaison on her behalf, responding to inquiries and issues of community leaders and public groups.
12. Assists the Police and Fire Pension Board, as well as the Civil Service Commission, with the preparation of meeting materials, facilitation of meetings, record keeping, and compilation of data and information as needed.
13. Prepares annual budget request for the department's operations. Ensures adherence to the approved budget. Performs overall general fund budget oversight duties as directed.
14. Oversee the Education and Training needs of employees, as it relates to required licensing and certifications needed to perform their job duties.
15. Attend meetings of the Township Boards and Commissions, as needed.



**YPSILANTI
TOWNSHIP**
— WHERE YOUR FUTURE GROWS —

16. Develops, recommends and updates township personnel policies.
17. Performs related work as required.

Required Knowledge, Skills, Abilities and Minimum Qualifications:

The requirements listed below are representative of the knowledge, skills, abilities and minimum qualifications necessary to perform the essential functions of the position. These requirements may be accommodated for otherwise qualified individuals requiring and requesting such accommodations.

1. A Bachelor's Degree in Business, Public, Administration, Human Resources, Labor Relations or a related field. A Master's Degree in a related field is preferred. SPHR or similar certification is highly desirable.
2. Leadership experience working in the public sector is required.
3. Seven or more years of labor relations, human resources management, or related experience. Experience with supervising and developing others.
4. Thorough knowledge of the laws, statutes, and regulations pertaining to employee recruitment, hiring, discharge, record-keeping, training, payroll, insurance and retirement.
5. Considerable knowledge of the principles and practices of municipal government operations, including budget management.
6. Demonstrated success with establishing confidential and effective working relationships. Demonstrated use of good judgment, initiative and resourcefulness when dealing with employees, Elected Officials and the public.
7. Thorough knowledge of Human Resources practices and techniques. Considerable knowledge of labor negotiations, contract administration, and mediation. Ability to work in collaboration with the Township designated labor attorney.
8. A team player with initiative, sound judgment, integrity, and strong analytical skills. Strong leadership and interpersonal skills to guide and lead the Human Resource Department. A "lead by example" management style and hold self and staff members accountable to achieving and maintaining a high level of customer service and professionalism.
9. The ability to establish and maintain effective working relationships with employees, retirees, elected officials, other governmental and regulatory agencies, and professional contacts.



**YPSILANTI
TOWNSHIP**
— WHERE YOUR FUTURE GROWS —

10. The ability to convey and understand information effectively and promptly through speaking, hearing, reading, and writing.
11. The ability to critically assess situations, solve problems, and work effectively within deadlines, and the changing of work priorities.

Physical Demands and Work Environment:

The physical demands and work environment characteristics described here are representative of those an employee encounters while performing the essential functions of the job. These requirements may be accommodated for otherwise qualified individuals requiring and requesting such accommodation.

While performing the duties of this job, the employee is regularly required to talk, hear, and view and produce written documents. The employee frequently is required to sit; use hands to grasp, handle, or feel; and reach with hands and arms. The employee is required to stand, walk, and occasionally stoop or kneel. The employee must occasionally lift and/or move items of light weight.

While performing the duties of this job, the employee typically works in a business office setting. The noise level in the work environment can range from quiet to moderately loud

Recommended Salary Range:

\$95,000.00 to \$105,000.00 per year

Township Supervisor
Brenda L. Stumbo
Township Clerk
Debbie Swanson
Township Treasurer
Stan Eldridge



YPSILANTI TOWNSHIP

— OFFICE OF THE CLERK —

Trustees
Karen Lovejoy Roe
John Newman II
Gloria Peterson
LaResha Thornton

TO: Township Board

FROM: Brenda Stumbo, Supervisor
Debbie Swanson, Clerk
Stan Eldridge, Treasurer

DATE: July 9, 2025

RE: **Request authorization to proceed in partnership with Lombardo Homes to make improvements to the Merritt Road and Tuttle Hill Road intersection for signalization and pedestrian crossing.**

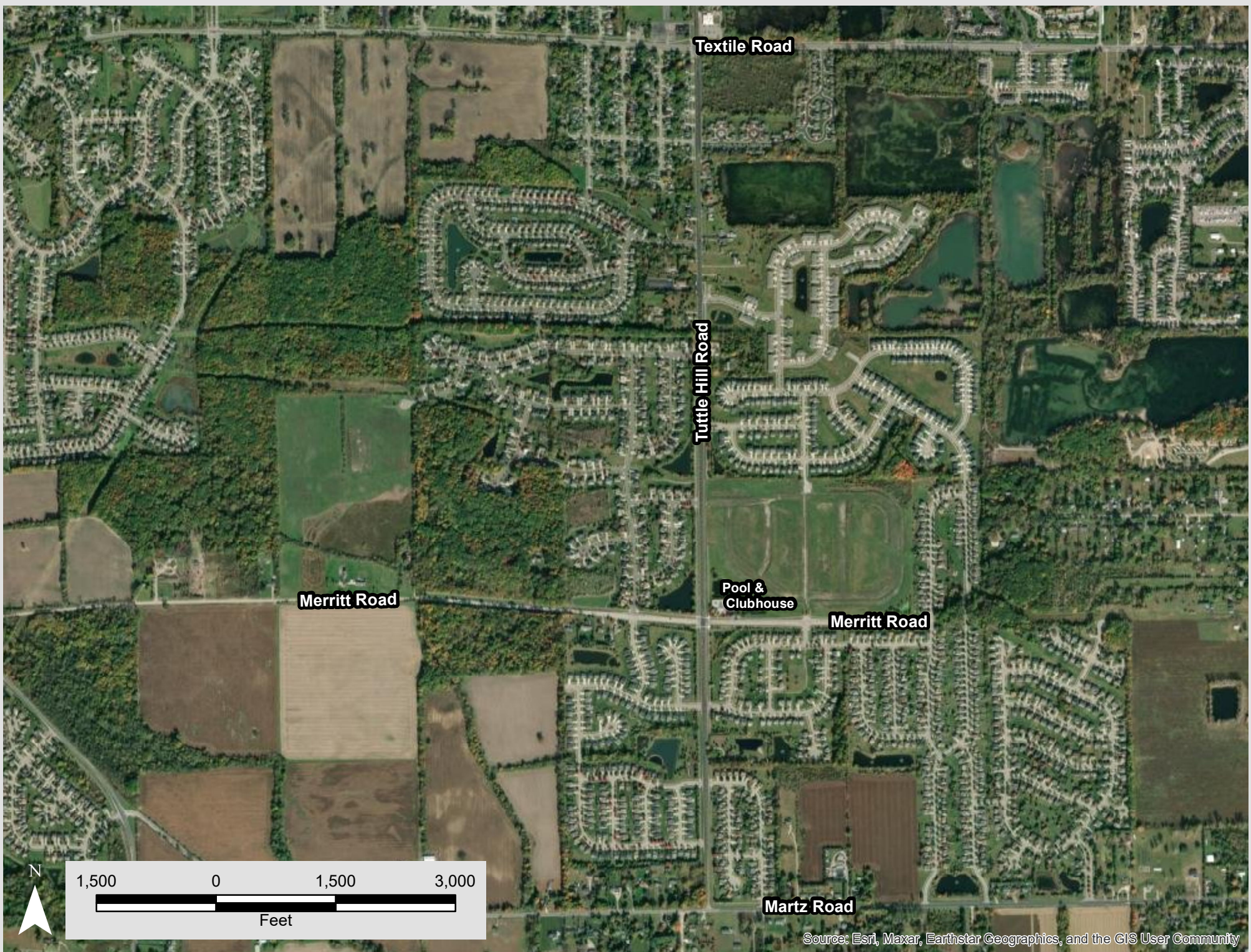
The Township has been requesting some type of traffic improvements at the intersection of Tuttle Hill and Merritt for many years to no avail from the Washtenaw County Road Commission. This week, Greg Wingerland, the developer of Lombardo Homes, requested a meeting and offered a financial contribution in the amount of \$185,000 to assist with the cost of signalization of the intersection even though the Washtenaw County Road Commission did not require them to make any improvements to this intersection as part of their development.

We are requesting authorization for the three full-time officials and the township attorney to negotiate a road improvement agreement for the signalization of Merritt Road and Tuttle Hill Road, including push button pedestrian crossing with the Washtenaw County Road Commission. The agreement and the cost will be brought back to the board for approval.

We have been in communication with Washtenaw County Commissioners Justin Hodges and Annie Sommerville as well as County Administrator Greg Dill to help with resolving this safety concern.

We believe this is the fastest way forward to get the much-needed safety improvements at this intersection that the Township has been requesting for years on behalf of our residents. Our community needs and deserves a solution sooner rather than later.

Thank you for your consideration.



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Motion to Amend the 2025 Budget (#9)

Move to increase the General Fund budget by \$45,927 to \$21,381,006 and approve the department line item changes as outlined.

Move to increase the Bike, Sidewalk, Rec, Roads, General (BSRII) Fund budget by \$11,350 to \$2,367,490 and approve the department line item changes as outlined.

Move to increase the Environmental Service Fund budget by \$1,625 to \$4,299,615 and approve the department line item changes as outlined.

Move to increase the Recreation Fund budget by \$24,000 to \$1,022,737 and approve the department line item changes as outlined.

Move to increase the 14B District Court Fund budget by \$1,970 to \$1,869,633 and approve the department line item changes as outlined.

Move to increase the Law Enforcement Fund budget by \$1,300 to \$10,384,885 and approve the department line item changes as outlined.

Move to increase the Debt 2006 Bond Fund budget by \$50 to \$234,360 and approve the department line item changes as outlined.

Move to increase the Motor Pool Fund budget by \$325 to \$420,642 and approve the department line item changes as outlined.

**CHARTER TOWNSHIP OF YPSILANTI
2025 BUDGET AMENDMENT # 9**

July 15, 2025

AMOUNTS ROUNDED UP TO THE NEAREST DOLLAR

101 - GENERAL FUND

Total Increase \$45,927.00

Request to increase the health benefits due to changes in health care coverage. This will be funded by an appropriation of prior year fund balance.

Revenues:	Prior Year Fund Balance	101-000-699.999	\$45,927.00
		Net Revenues	<u><u>\$45,927.00</u></u>
Expenditures:	Departments		
	Health Care	101-171-719.000	\$37,671.00
	Dental	101-171-719.015	\$1,145.00
	Vision	101-171-719.016	\$50.00
	Health Care deduction	101-171-719.020	\$6,950.00
	Health Admin fees	101-171-719.021	\$111.00
		Net Expenditures	<u><u>\$45,927.00</u></u>

213 - BIKE, SIDEWALK, REC, ROADS GENERAL FUND (BSRII)

Total Increase \$11,350.00

Request to increase the budget to replace a zero turn mower destroyed by fire. This will be funded by our MML insurance claim.

Revenues:	Insurance Reimbursement	213-000-676.012	\$11,350.00
		Net Revenues	<u><u>\$11,350.00</u></u>
Expenditures:	Equipment	213-753-977.000	\$11,350.00
		Net Expenditures	<u><u>\$11,350.00</u></u>

226 - ENVIRONMENTAL SERVICES FUND

Total Increase \$1,625.00

Request to increase the budget for Board approved TPOAM employee health care savings inadvertently omitted from the total on the prior budget amendment request. This will be funded by an appropriation of prior year fund balance.

Revenues:	Prior Year Fund Balance	226-000-699.999	\$1,625.00
		Net Revenues	<u><u>\$1,625.00</u></u>
Expenditures:	Health Care Saving	226-528-718.001	\$1,625.00
		Net Expenditures	<u><u>\$1,625.00</u></u>

230 - RECREATION FUND

Total Increase \$24,000.00

Request to increase budget for youth sports due to the partnership with MLSgo to provide jerseys. This will be funded by an appropriation of prior year fund balance.

Revenues:	Prior Year Fund Balance	230-000-699.999	\$24,000.00
		Net Revenues	<u><u>\$24,000.00</u></u>
Expenditures:	REC Youth Sport Program	230-754-963.100	\$24,000.00
		Net Expenditures	<u><u>\$24,000.00</u></u>

**CHARTER TOWNSHIP OF YPSILANTI
2025 BUDGET AMENDMENT # 9**

236 - 14B DISTRICT COURT FUND	July 15, 2025	Total Increase	<u><u>\$1,970.00</u></u>
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Request to increase the budget for PTO payout at 75%. This will be funded by an appropriation of prior year fund balance.

Revenues:	Prior Year Fund Balance	236-000-699.999	\$1,970.00
		Net Revenues	<u><u>\$1,970.00</u></u>
Expenditures:	Salary PTO Payout	236-286-708.004	\$1,830.00
	FICA	236-286-715.000	<u><u>\$140.00</u></u>
		Net Expenditures	<u><u>\$1,970.00</u></u>

266 - LAW ENFORCEMENT FUND		Total Increase	<u><u>\$1,300.00</u></u>
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Request to increase the budget for Board approved TPOAM employee health care savings inadvertently omitted from the total on the prior budget amendment request. This will be funded by an appropriation of prior year fund balance.

Revenues:	Prior Year Fund Balance	266-000-699.999	\$1,300.00
		Net Revenues	<u><u>\$1,300.00</u></u>
Expenditures:	Health Care Savings	266-304-718.001	\$1,300.00
		Net Expenditures	<u><u>\$1,300.00</u></u>

398 - DEBT 2006 BOND FUND		Total Increase	<u><u>\$50.00</u></u>
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Request to increase the budget for an additional about needed for the cost of bond administration. This will be funded by an appropriation of prior year fund balance.

Revenues:	Prior Year Fund Balance	398-000-699.999	\$50.00
		Net Revenues	<u><u>\$50.00</u></u>
Expenditures:	Cost of Bond Issuance	398-906-993.008	\$50.00
		Net Expenditures	<u><u>\$50.00</u></u>

661 - MOTOR POOL FUND		Total Increase	<u><u>\$325.00</u></u>
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Request to increase the budget for Board approved TPOAM employee health care savings inadvertently omitted from the total on the prior budget amendment request. This will be funded by an appropriation of prior year fund balance.

Revenues:	Prior Year Fund Balance	661-000-699.999	\$325.00
		Net Revenues	<u><u>\$325.00</u></u>
Expenditures:	Health Care Savings	661-268-718.001	\$325.00
		Net Expenditures	<u><u>\$325.00</u></u>

AUTHORIZATIONS AND BIDS

CHARTER TOWNSHIP OF YPSILANTI FIRE DEPARTMENT

222 South Ford Boulevard, Ypsilanti, MI 48198
Phone 734-544-4225 Fax 734-544-4195

Steven Densmore
Fire Chief



MEMORANDUM

To: Charter Township of Ypsilanti Trustees

From: Fire Chief Steven Densmore

Date: July 03, 2025

Subject: Accept the bid from CSI Emergency Apparatus to purchase one Aerial Fire Apparatus in the amount of \$1,499,428.00, budgeted in line item #217-901-979.000

The Fire Department is requesting authorization to accept the bid package from CSI Emergency Apparatus to purchase one Aerial Fire Apparatus. This apparatus will be available from production in March of 2026 and will be outfitted in Grayling, Michigan and be available mid-April for service to the township. Funding will come from line item #217-901-979-000. CSI has been a long-time vendor of the township and is willing to work with warranty issues, regular maintenance and emergency repairs. This will make the apparatus fleet 100% Spartan, which will make the preventive maintenance budget line item much easier to manage.

The township received 3 inquiries with estimates using the bidding platform Sourcewell. These are estimates, both Sutphen and Pierce needed a firm commitment to make a bid, which CSI did not. The bids received are below:

CSI- \$ 1,499,428.00 with the cooperative Sourcewell bidding program. As noted, this will include Dealer equipment/upfit (equipment, shelving, cabinets etc).

Sutphen- 1.5 million, subject to completion of being used as a demo for several months before turning it over to the township, with less of a warranty. As of today, the Aerial has been sold.

Pierce- 1.3 million without any loss equipment, shelving, mounting brackets, EMS cabinet, ext. The Aerial will have several thousand miles, and the warranty may or may not be prorated and is delivered AS IS. They had two demos and have been sold.

Thank you for your consideration,
Chief Steve Densmore



Brandon, SD | Charlotte, MI | Ephrata, PA | Snyder, NE
SPARTANER.COM

Vendor Contract #113021-RVG-4

July 3, 2025

Ypsilanti Township Fire Department
Member ID# 139086
222 S. Ford Blvd.
Ypsilanti, MI 48198

We are pleased to offer to you a Spartan Emergency Response 77' Rear Mount Ladder on a Metro Star chassis through the Sourcewell® Contract, based on the provided specifications and drawings.

MSRP	\$1,553,990.00
Sourcewell Discount	(\$156,200.00)
Discount Percentage	9.88%
Sourcewell Price	\$1,400,388.00
Dealer Equipment/Upfit	\$99,040.00
Contract Price	\$1,499,428.00 **

Prices above do not include any Federal, State or local taxes.

We look forward to providing your agency with an industry leading apparatus. Our legacy of expertise means we build your apparatus from the ground up on a foundation ready to handle your specific response equipment and route needs. We strategically configure your apparatus design to represent the best possible mix of safety, speed, agility, ergonomics, and serviceability.

**** Contract price expires on July 18, 2025**

****If truck is paid for within 20 days of final inspection at the factory, a credit of \$15,000.00 shall be deducted from the contract price**

The Sourcewell price includes the following:

One (1) Chassis inspection for up to five (5) people at the chassis factory
One (1) Final inspection for up to five (5) people at the final assembly location
Three (3) aerial training sessions (1 each shift)
Three (3) apparatus training sessions (1 each shift)
\$2000 Sourcewell fee
Graphics package
Delivery to the fire department

CSI Emergency Apparatus
2332 Dupont Street
Grayling, MI 49738

Phone: 989-348-2877
Fax: 989-348-8233



CSI Emergency Apparatus
1650 Callaghan
Greenville, MI 48838

Phone: 616-225-9200
Fax: 616-225-1271

**The Charter Township of Ypsilanti, Michigan
Sales Contract
222 S. Ford Blvd, Ypsilanti, MI 48198**

THIS CONTRACT ("Contract") is made by and between CSI Emergency Apparatus, LLC ("CSI") representing Spartan Emergency Response along with Sourcewell and the **The Charter Township of Ypsilanti, Michigan** ("Customer"). This Contract will not become binding upon CSI until it is executed by an officer of CSI, and accepted by Spartan Emergency Response, and the effective date of the Contract ("Effective Date") will be the date that the CSI officer executes the Contract on behalf of Sourcewell from Spartan Emergency Response. The parties hereby agree as follows:

- I. Subject to the terms of this Contract, CSI shall represent Spartan ER to furnish, and the Customer shall purchase, the apparatus and equipment ("Apparatus and Equipment") described and in accordance, in all material respects with the specifications ("Original Customer Specifications") submitted with the Spartan bid proposal (the "Bid Proposal"). In the event there is any conflict between original customer specification and the bid proposal, the bid proposal will prevail.
- II. This Contract for Apparatus and Equipment conforms to all Federal Department of Transportation (DOT) and Environmental Protection Agency (EPA) rules and regulations and to all National Fire Protection Association (NFPA) Guidelines for Automotive Fire Apparatus in effect as of the Effective Date, unless noted otherwise in the Bid Proposal.
- III. Spartan shall have the apparatus ready for final inspection and delivery to CSI from Spartan's Snyder, Nebraska facility, within **220 days**, excluding any additional dealer make ready days described below. This delivery timeframe is subject to modification if there are customer driven delays to holding any construction meeting and/or if there are customer driven delays to returning the corresponding signed change orders to the factory. All change orders must be approved by the date designated on the Spartan provided change order or the added days of production noted on the change order will be added to the above-mentioned delivery timeframe. Any further delays after the pre-construction has been completed in providing additional desired specifications, change approvals, inspection timelines, or other required information for the Apparatus and Equipment may result in an extension of the above referenced delivery timeline by the amount of time Spartan requires, in its sole but reasonable discretion, to furnish the Apparatus and Equipment following Customer's delay, but in any event by at least the duration of Customer's delay.
- IV. In exchange for the Apparatus and Equipment, Customer agrees to pay the sum of **One Million Four Hundred Ninety-Nine Thousand Four Hundred Twenty-Eight Dollars \$1,499,428.00** Purchase Price").

The final balance payment of **\$1,499,428.00** is due upon delivery to Customer. Project changes orders as approved by the purchasing authority will be applied to the final invoice. Interest at 18 percent per annum, payable monthly, shall be charged on all past due payments.

The Apparatus shall NOT be placed in service prior to payment in full, NO EXCEPTIONS.
- V. Any applicable taxes not specified or noted above will be paid by Customer directly. If Customer claims exemption from any tax, Customer's applicable exemption certificate shall be provided with this contract or your Tax ID number provided below to hold CSI harmless from any such tax, interest or penalty which may at any time be assessed against CSI.

PROUDLY REPRESENTING **SPARTAN ER**



Key proposal documents referenced for the above contract are:

- **One (1) Spartan ER 77' Quint Fire Apparatus as outlined in our bid proposal package as follows:**

a) **Bid Proposal Specifications Dated:** 7-03-2025

b) **Proposal Letter Dated:** 7-03-2025

This contract is agreed to by the parties as of the Effective Date.

CSI Emergency Apparatus

Purchasing Authority:

The Charter Township of Ypsilanti

By: _____

CSI Emergency Apparatus Officer Signature

By: _____

Authorized Signer

Print Name

Print Name

Title: _____

Title: _____

Date

By: _____

Authorized Signer

Print Name

Title: _____

Authority Tax ID Number

Date

Authority name as it is to appear on the vehicle title

Authority address as it is to appear on the vehicle title

City

State

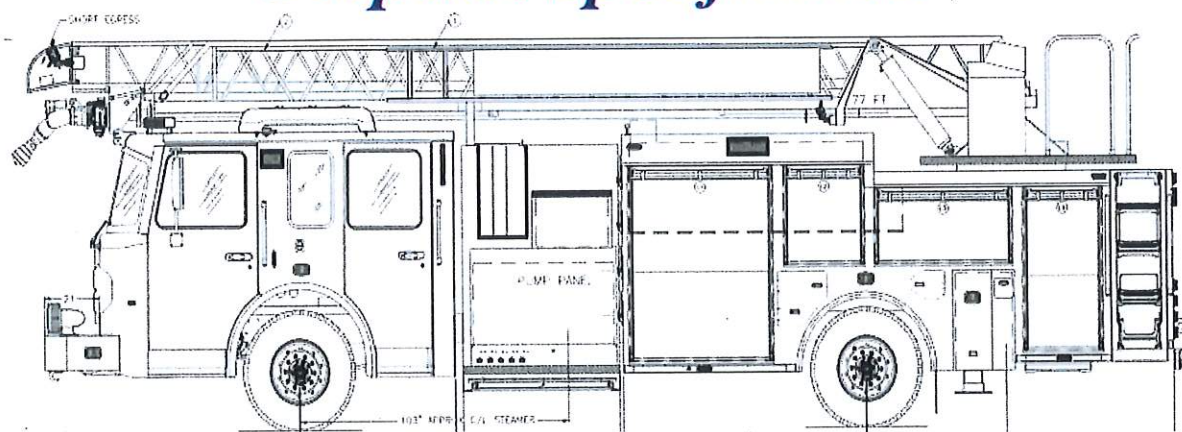
Zip

Authority City, State, Zip as it is to appear on the title



SPARTAN
SPARTANERV.COM

Ypsilanti Township Fire Spartan S-180 Series 77' Rear Mount Ladder Proposal Specification



Proudly Represented By:
CSI Emergency Apparatus
2332 Dupont Street
Grayling, Michigan 49738



Prepared By: MATTHEW HOLZHEI
Mobile: 517-719-2328
mholzhei@csiea.com

7-3-2025



YPSILANTI TOWNSHIP 77' REAR MOUNT LADDER

PROPOSAL SPECIFICATION 7-3-2025

Chassis Specification

0100-011

MODEL

The chassis shall be a Metro Star model. The cab and chassis shall include design considerations for multiple emergency vehicle applications, rapid transit and maneuverability. The chassis shall be manufactured for heavy duty service with the strength and capacity to support a fully laden apparatus, one hundred (100) percent of the time.

8011-025

MODEL YEAR

The chassis shall have a vehicle identification number that reflects a 2025 model year.

8001-001

COUNTRY OF SERVICE

The chassis shall be put in service in the country of United States of America (USA).

The chassis will meet applicable U.S.A. federal motor vehicle safety standards per CFR Title 49 Chapter V Part 571 as clarified in the incomplete vehicle book per CFR Title 49 Chapter V Part 568 Section 4 which accompanies each chassis. The chassis manufacturer is not responsible for compliance to state, regional, or local regulations. Dealers should identify those regulations and order any necessary optional equipment from the chassis manufacturer or their OEM needed to be in compliance with those regulations.

8017-009

CAB AND CHASSIS LABELING LANGUAGE

The cab and chassis shall include the applicable caution, warning, and safety notice labels with text to be written in English. All applicable caution, warning, and safety notice labels shall be Innovative Controls brand. Where applicable to the location within the specific layout and label package of the cab and chassis, the labels shall include decorative chrome bezels. Designs shall include bezels that fit individual labels or packaged configurations of labels in certain common locations.

8006-011

APPARATUS TYPE

The apparatus shall be a Quint vehicle designed for emergency service use. The apparatus shall include a permanently mounted fire pump which has a minimum rated capacity of 750 gallons per minute (3000



YPSILANTI TOWNSHIP 77' REAR MOUNT LADDER

PROPOSAL SPECIFICATION 7-3-2025

L/min), a water tank, a hose storage area, a compliment of ground ladders, and an aerial ladder or elevating platform with a permanently mounted waterway that shall be rear mounted thus providing the following vehicle benefits:

- ▣ Improved mobility vs. mid-ship mounted units, due to shorter overall travel length and wheelbase.
- ▣ Increased compartment space, hose load, and water capacity in the body, resulting from ladder being raised to clear the cab.
- ▣ Shorter vehicle wheelbase.

Shorter overall length of vehicle.

8008-001

VEHICLE TYPE

The chassis shall be manufactured for use as a straight truck type vehicle and designed for the installation of a permanently mounted apparatus behind the cab. The apparatus of the vehicle shall be supplied and installed by the apparatus manufacturer.

8008A-000

VEHICLE ANGLE OF APPROACH PACKAGE

The angle of approach of the apparatus shall be a minimum of 8.00 degrees.

NFPA1901 Angle of Approach definition:

"To determine the angle of approach, place a thin steel strip against the front of the tires where they touch the ground or stretch a tight string from one front tire to the other at the front where they touch the ground. Determine the lowest point (component or equipment) on the vehicle forward of the front tire that would make the smallest angle of approach. Hang a plumb bob from the lowest point and mark the point on the ground where the point of the plumb bob touches. Measure the vertical distance from the ground to the point where the plumb bob was hung (distance V). Measure the horizontal distance from the plumb bob point to the steel strip or string running from front tire to front tire (distance H). Divide the vertical distance by the horizontal distance. The ratio of V/H is the tangent of the angle of approach. If the ratio is known, the angle of approach can be determined from a table of trigonometric functions of angles or from a math calculator. The standard requires a minimum angle of approach of 8.00 degrees:

since the tangent of 8.00 degrees is 0.1405, if V divided by H is 0.1405 or larger, the angle of approach is 8.00 degrees or greater."

0104-001

AXLE CONFIGURATION

The chassis shall feature a 4 x 2 axle configuration consisting of a single rear drive axle with a single front steer axle.



YPSILANTI TOWNSHIP 77' REAR MOUNT LADDER

PROPOSAL SPECIFICATION 7-3-2025

0101-016

GROSS AXLE WEIGHT RATINGS FRONT

The front gross axle weight rating (GAWR) of the chassis shall be 23,000 pounds.

This front gross axle weight rating shall be adequate to carry the weight of the completed apparatus including all equipment and personnel.

0102-029

GROSS AXLE WEIGHT RATINGS REAR

The rear gross axle weight rating (GAWR) of the chassis shall be 35,000 pounds. This rear gross axle weight rating shall be adequate to carry the weight of the completed apparatus including all equipment and personnel.

8010-201

PUMP PROVISION

The chassis shall include provisions to mount a drive line pump in the middle of the chassis, behind the cab, more commonly known as the midship location. Chassis driveline pump provisions shall include an interlock feature for automatic setting of the park brake when the vehicle is shifted into pump mode while the transmission is in neutral and the transmission output speed translates to less than 1 mph. When the conditions are met the driver side parking brake valve shall activate. Once shifted to road mode the condition for electric automatic brake engagement is no longer present and the driver's parking brake control valve shall function normally.

8009-004

WATER & FOAM TANK CAPACITY

The chassis shall include a carrying capacity of up to 750 gallons (2839 liters). The water and/or foam tank(s) shall be supplied and installed by the apparatus manufacturer.

1000-012

CAB STYLE

The cab shall be a custom, fully enclosed, EMFD model with a flat roof over the driver, officer, and crew area, designed and built specifically for use as an emergency response vehicle by a company specializing in cab and chassis design for all emergency response applications. The cab shall be designed for heavy-duty service utilizing superior strength and capacity for the application of protecting the occupants of the vehicle. This style of cab shall offer up to eight (8) seating positions.



YPSILANTI TOWNSHIP 77' REAR MOUNT LADDER

PROPOSAL SPECIFICATION 7-3-2025

The cab shall incorporate a fully enclosed design with side wall roof supports, allowing for a spacious cab area with no partition between the front and rear sections of the cab. To provide a superior finish by reducing welds that fatigue cab metal; the roof, the rear wall and side wall panels shall be assembled using a combination of welds and proven industrial adhesives designed specifically for aluminum fabrication for construction.

The cab shall be constructed using multiple aluminum extrusions in conjunction with aluminum plate, which shall provide proven strength and the truest, flattest body surfaces ensuring less expensive paint repairs if needed. All aluminum welding shall be completed to the American Welding Society and ANSI D1.2-96 requirements for structural welding of aluminum.

All interior and exterior seams shall be sealed for optimum noise reduction and to provide the most favorable efficiency for heating and cooling retention.

The cab shall be constructed of 5052-H32 corrosion resistant aluminum plate. The cab shall incorporate tongue and groove fitted 6061-T6 0.13 & 0.19 inch thick aluminum extrusions for extreme duty situations. A single formed, one (1) piece extrusion shall be used for the "A" pillar, adding strength and rigidity to the cab as well as additional roll-over protection. The cab side walls and lower roof skin shall be 0.13 inch thick; the rear wall and raised roof skins shall be 0.09 inch thick; the front cab structure shall be 0.19 inch thick. The exterior width of the cab shall be 94.00 inches wide with a minimum interior width of 88.00 inches. The overall cab length shall be 137.10 inches with 60.00 inches from the centerline of the front of the axle to the back of the cab.

The cab interior shall be designed to afford the maximum usable interior space and attention to ergonomics with hip and legroom while seated which exceeds industry standards. The crew cab floor shall be flat across the entire walking area for ease of movement inside the cab.

The cab shall offer an interior height of 57.50 inches from the front floor to the headliner and a rear floor to headliner height of 55.00 inches at a minimum. The cab shall offer an interior measurement at the floor level from the rear of the engine tunnel to the rear wall of the cab of 57.88 inches. All interior measurements shall include the area within the interior trimmed surfaces and not to any unfinished surface.

The cab shall include a driver and officer area with two (2) cab doors large enough for personnel in full firefighting gear. The front doors shall offer a clear opening of 40.25 inches wide X 53.50 inches high, from the cab floor to the top of the door opening. The cab shall also include a crew area with up to two (2) cab doors, also large enough for personnel in full firefighting gear. The rear doors shall offer a clear opening of 32.25 inches wide X 51.00 inches high, from the cab floor to the top of the door opening.

The cab shall incorporate a progressive two (2) step configuration from the ground to the cab floor at each door opening. The progressive steps are vertically staggered and extend the full width of each step well allowing personnel in full firefighting gear to enter and exit the cab easily and safely.



YPSILANTI TOWNSHIP 77' REAR MOUNT LADDER
PROPOSAL SPECIFICATION 7-3-2025

The first step for the driver and officer area shall measure approximately 11.50 inches deep X 31.13 inches wide. The intermediate step shall measure approximately 8.50 inches deep X 32.50 inches wide. The height from the first step to the intermediate step and the intermediate step to the cab floor shall not exceed 11.00 inches.

The first step for the crew area shall measure approximately 11.50 inches deep X 20.44 inches wide. The intermediate step shall measure approximately 10.25 inches deep X 22.75 inches wide. The height from the first step to the intermediate step and the intermediate step to the cab floor shall not exceed 12.80 inches.

8101-200
OCCUPANT PROTECTION

An IMMI 4Front® occupant protection system shall be installed in the vehicle's cab. The system shall inflate three (3) air bags in the following locations:

- ▣ Steering wheel air bag to protect the head and neck of the driver
- ▣ Knee bolster air bag to protect the driver's legs
- ▣ Knee bolster air bag to protect the officer's legs

The air bags shall use a combination of high-pressure stored argon and oxygen with a pyrotechnic charge for initiation to inflate the bags remain inflated for several seconds.

The system shall be connected to the crash detection sensor that will also activate the driver and first officer integrated belt pretensioners if it detects a frontal crash.

A RollTek™ rollover occupant protection system shall be installed in the apparatus cab. The system shall include an integrated roll sensor (IRS) master module and a slave sensor in applicable configurations.

The IRS shall be a microprocessor-controlled solid-state sensing device that utilizes vehicle-specific calibrations to detect rollovers. The IRS shall be equipped with pyrotechnic loops for connection to the protective countermeasures which shall include seat integrated side roll airbags (SRA), integrated seat belt pretensioners, and air seat pull-downs (S4S), in applicable occupant seat positions.

The IRS shall continuously monitor the truck's acceleration and angle, and upon detection of an imminent roll-over, shall activate protective countermeasures in a pre-programmed sequence. In addition, the IRS shall also act as a data recorder to record crash events for post-crash evaluation.

1501-002
CAB FRONT FASCIA



YPSILANTI TOWNSHIP 77' REAR MOUNT LADDER

PROPOSAL SPECIFICATION 7-3-2025

The front cab fascia shall be constructed of 5052-H32 Marine Grade, 0.13 of an inch thick aluminum plate which shall be an integral part of the cab.

The cab fascia will encompass the entire front of the aluminum cab structure from the bottom of the windshield to the bottom of the cab and shall be the "Classic" design.

The front cab fascia shall include two (2) molded plastic modules on each side accommodating a total of up to four (4) Hi/Low beam headlights and two (2) turn signal lights or up to four (4) warning lights. A chrome plated molded plastic bezel shall be provided on each side around each set of four lamps.

1518-025

FRONT GRILLE

The front fascia shall include a box style, 304 stainless steel front grille 44.45 inches wide X 33.50 inches high X 1.50 inches deep. The grille shall include a minimum free air intake of 732.00 square inches. The upper portion of the grille shall be hinged to provide service access behind the grille.

1551-002

CAB UNDERCOAT

There shall be undercoating applied to the underside of the cab which provides an abrasion resistant coating for protection against corrosion caused by moisture, salt, alkalis and galvanic reaction.

1552-002

CAB SIDE DRIP RAIL

There shall be a drip rail along the top radius of each cab side. The drip rails shall help prevent water from the cab roof running down the cab side.

1521-001

CAB PAINT EXTERIOR

The cab exterior shall be painted a single color per customers specified paint color following the RFG- SR-001 paint standards.

1533-001

CAB PAINT PROCESS/MANUFACTURER

The cab shall be painted with PPG Industries paint prior to the installation of glass accessories and all other cab trim to ensure complete paint coverage and the maximum in corrosion protection of all metal surfaces.



YPSILANTI TOWNSHIP 77' REAR MOUNT LADDER
PROPOSAL SPECIFICATION 7-3-2025

All metal surfaces on the cab shall be mechanically etched by sanding disc to remove any surface oxidation or surface debris which may hinder the paint adhesion. Once all imperfections on the exterior surfaces are removed and sanded smooth, body fillers shall be applied to the cab on all surfaces that require a critically aesthetic finish and sanded smooth.

The entire cab shall then be coated with a high quality base primer that is designed to fill any minor surface defects, provide an adhesive bond between the primer and the paint and improve the color and gloss retention of the color. The finish to this procedure shall be sanding the cab to a smooth finish followed by sealing the seams with an automotive seam sealer. The minimum thickness of the primer coat after sanding shall be 2.50 mils with a maximum thickness of 5.00 mils.

The cab shall then be painted the specific color(s) designated by the customer with an acrylic urethane type system designed to retain color and resist acid rain and most atmospheric chemicals found on an emergency scene. The paint shall have a minimum thickness of 1.00 mils with a maximum of 4 mils, followed by a clear top coat with a minimum of 2.5 mils and a maximum of 3.5 mils. The entire cab shall then be baked to speed the curing process of the coatings.

1522-800

CAB PAINT PRIMARY/LOWER COLOR

The primary/lower paint color shall be PPG FBCH red. Match Spartan VIN 4S9BDEUA5RB559757

8013-156

CAB PAINT WARRANTY

Purchaser shall receive a Paint and Finish (Exterior Clear coated) Ten (10) Years limited warranty in accordance with, and subject to, warranty certificate RFW0710. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

1334-039

CAB PAINT INTERIOR

The visible interior cab structure surfaces shall be painted with a multi-tone onyx black texture finish.

1005-001

CAB ENTRY DOORS

The cab shall include four (4) entry doors, two (2) front doors and two (2) crew doors designed for ease of entering and egress when outfitted with an SCBA. The doors shall be constructed of extruded aluminum with a nominal thickness of 0.13 inch. The exterior skins shall be constructed of 0.13 inch aluminum plate.



YPSILANTI TOWNSHIP 77' REAR MOUNT LADDER

PROPOSAL SPECIFICATION 7-3-2025

The doors shall include a double rolled style automotive rubber seal around the perimeter of each door frame and door edge which ensures a weather tight fit.

All door hinges shall be hidden within flush mounted cab doors for a pleasing smooth appearance and perfect fit along each side of the cab. Each door hinge shall be piano style with a 0.38 inch pin and shall be constructed of stainless steel.

1101-102

CAB ENTRY DOOR TYPE

All cab entry doors shall be barrier clear design resulting in exposed lower cab steps. The doors shall provide approximately 32.00 inches of clearance from the ground to the bottom of the door so cab doors may be opened un-hindered by most obstacles encountered, such as guard rails along interstate highways.

Entry doors shall include Pollak mechanical plunger style switches for electrical component activation.

1322-007

CAB INSULATION

The cab ceiling and walls shall include a nonwoven polyester fiber insulation. The insulation shall act as a barrier absorbing noise as well as assisting in sustaining the desired climate within the cab interior.

8004-033

CAB STRUCTURAL WARRANTY

Purchaser shall receive a Cab Structure (Aluminum) Ten (10) Years or 100,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0602. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

9001-006

CAB TEST INFORMATION

The cab shall have successfully completed the preload side impact, static roof load application and frontal impact without encroachment to the occupant survival space when tested in accordance with Section 4 of SAE J2420 COE Frontal Strength Evaluation Dynamic Loading Heavy Trucks, Section 5 of SAE J2422 Cab Roof Strength Evaluation Quasi -Static Loading Heavy Trucks and ECE R29 Uniform Provisions Concerning the Approval of Vehicles with



YPSILANTI TOWNSHIP 77' REAR MOUNT LADDER

PROPOSAL SPECIFICATION 7-3-2025

regard to the Protection of the Occupants of the Cab of a Commercial Vehicles Annex 3 Paragraph 5.

The above tests have been witnessed by and attested to by an independent third party. The test results were recorded using cameras, high speed imagers, accelerometers and strain gauges. Documentation of the testing shall be provided upon request.

5000-018

ELECTRICAL SYSTEM

The chassis shall include a single starting electrical system which shall include a 12 volt direct current multiplexing system, suppressed per SAE J551. The wiring shall be appropriate gauge cross link with 311 degree Fahrenheit insulation. All SAE wires in the chassis shall be color coded and shall include the circuit number and function where possible. The wiring shall be protected by 275 degree Fahrenheit minimum high temperature flame retardant loom. All nodes and sealed Deutsch connectors shall be waterproof.

5008-072

OEM WIRING

The wiring system shall include a prewire for ECM park brake input and engine ground return circuits located behind the switch panel. The circuits shall include an extra 2.00 feet of wire and shall be labeled "ECM Park Brake Input".

5005-300

MULTIPLEX DISPLAY

The multiplex electrical system shall include an UltraView 780 display with an interactive touchscreen display and fourteen (14) tactile push buttons. The display shall be located on the left side of the dash in the switch panel. The display shall feature a full color 7.00 inch LCD display screen which shall include a message bar displaying the time of day and important messages requiring acknowledgement by the user. The display screen shall be video ready for back-up cameras, thermal cameras, and 360 camera systems.



YPSILANTI TOWNSHIP 77' REAR MOUNT LADDER

PROPOSAL SPECIFICATION 7-3-2025

The display shall offer varying fonts and background colors. The display shall be fully programmable to the needs of the customer and shall offer virtually infinite flexibility for screen configuration options.

5046-078

MULTIPLEX DISPLAY SPECIAL LAYOUT

The Vista display and control screen shall be configured specifically for a virtual button on the control screen to override the park brake interlocked deactivation of the wiper system. This will reset when the park brake is cycled.

The Vista display and control screen shall also be configured specifically for the vista dimmer control screen to have two dimmer settings. The dimmer settings shall be labeled "DAY" (Normal) and "NIGHT". This shall omit the additional default settings "MAX" and "DIM".

5004-002

LOAD MANAGEMENT SYSTEM

The apparatus load management shall be performed by the included multiplex system. The multiplex system shall also feature the priority of sequences and shall shed electrical loads based on the priority list specifically programmed.

5622-003

DATA RECORDING SYSTEM

The chassis shall have a Weldon Vehicle Data Recorder (VDR) system installed. The system shall be designed to meet NFPA 1901 and shall be integrated with the Weldon Multiplex electrical system. The following information shall be recorded:

- Vehicle Speed
- Acceleration
- Deceleration
- Engine Speed
- Engine Throttle Position
- ABS Event
- Seat Occupied Status
- Seat Belt Status
- Master Optical Warning Device Switch Position
- Time
- Date

Each portion of the data shall be recorded at the specified intervals and stored for the specified length of time to meet NFPA 1901 guidelines and shall be retrievable by connecting a laptop computer to the VDR system. The laptop connection shall be a panel mounted female type B USB connection point, remotely mounted in the left side foot well.

5031-013

ACCESSORY POWER



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The electrical distribution panel shall include two (2) power studs. The studs shall be size #10 and each of the power studs shall be circuit protected with a fuse of the specified amperage. One (1) power stud shall be capable of carrying up to a 40 amp battery direct load. One (1) power stud shall be capable of carrying up to a 15 amp ignition switched load. The two (2) power studs shall share one (1) #10 ground stud.

An OEM body connections bracket shall be installed on the chassis near the left hand battery box. The bracket shall include one (1) set each of a 350 amp master power switched and 300 amp battery direct power and ground studs. The 300 amp & 350 amp studs will not have any fuse protection and will be the responsibility of anyone using these studs to have fuse protection for each load attached. The studs will be labeled with max available amperage.

5030-108

AUXILIARY ACCESSORY POWER

An auxiliary six (6) position Blue Sea Systems 5025 blade type fuse panel shall be installed vertically behind the officers seat on the side of the engine tunnel. The fuse panel shall be protected by a 100 amp fuse. The panel shall be capable of carrying up to a maximum 100 amp battery direct load.

5032-036

ADDITIONAL ACCESSORY POWER

An additional six (6) position Blue Sea Systems 5025 blade type fuse panel shall be installed on the side wall of the engine tunnel behind the officer's seat. The fuse panel shall be protected by a 40 amp fuse. The panel shall be capable of carrying up to a maximum 40 amp battery direct load.

5033-021

EXTRA ACCESSORY POWER

An extra six (6) position Blue Sea Systems 5025 blade type fuse panel shall be provided and installed on the lower center rear wall of the cab. The fuse panel shall be protected by a 40 amp fuse. The panel shall be capable of carrying up to a maximum 40 amp battery direct load.

5011-001

EXTERIOR ELECTRICAL TERMINAL COATING

All terminals exposed to the elements will be sprayed with a high visibility protective rubberized coating to prevent corrosion.

8014-002

ELECTRICAL SYSTEM WARRANTY

Purchaser shall receive an Electrical System Two (2) Years or 36,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0202. The warranty certificate is



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incorporated by reference into this proposal, and included with this proposal or available upon request.

1701-170 ENGINE

The chassis engine shall be a Cummins X12 engine. The X12 engine shall be an in-line six (6) cylinder, four-cycle diesel-powered engine. The engine shall offer a rating of 500 horsepower at 1900 RPM and shall be governed at 2000 RPM. The torque rating shall feature 1700-foot pounds of torque at 1000 RPM with 720 cubic inches (11.8 liter) of displacement.

The X12 engine shall feature a VGT™ Turbocharger, a high-pressure common rail fuel system, fully integrated electronic controls with an electronic governor, and shall be EPA certified to meet the 2021-26 emissions standards using cooled exhaust gas recirculation and selective catalytic reduction technology.

The engine shall include an engine mounted combination full flow/by-pass oil filter with replaceable spin on cartridge for use with the engine lubrication system. The engine shall include Citgo brand Citgard 500, or equivalent SAE 15W40 CK-4 low ash engine oil which shall be utilized for proper engine lubrication.

A wiring harness shall be supplied ending at the back of the cab. The harness shall include a connector which shall allow an optional harness for the pump panel. The included circuits shall be provided for a tachometer, oil pressure, engine temperature, hand throttle, high idle and a PSG system. A circuit for J1939 data link shall also be provided at the back of the cab.

If a pre-2027 emission engine is NOT available at the time of build (starting production on January 1, 2026) your order will automatically be upgraded and charged for either the 2027 engine compliant Cummins X-10 or X-15, with all associated costs being passed on to the end user. No exceptions.

1329-001 CAB ENGINE TUNNEL

The cab interior shall include an integrated engine tunnel constructed of 5052-H32 Marine Grade, 0.19 of an inch thick aluminum. The tunnel shall be a maximum of 41.50 inches wide X 25.50 inches high.

1731-002 DIESEL PARTICULATE FILTER CONTROLS

There shall be two (2) controls for the diesel particulate filter. One (1) control shall be for regeneration and one (1) control shall be for regeneration inhibit.



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1718-002

ENGINE PROGRAMMING HIGH IDLE SPEED

The engine high idle control shall maintain the engine idle at approximately 1250 RPM when engaged.

1719-005

ENGINE HIGH IDLE CONTROL

The vehicle shall be equipped with an automatic high-idle speed control which shall be pre-set to operate the engine at a specified RPM to increase alternator output if the system voltage drops to 12.5 volts.

This device shall automatically operate only when the engine is running, the transmission is in neutral, and with the parking brake set. The automatic high idle will stay engaged for a minimum of ten (10) minutes and until the system, voltage has reached 13.0 volts. Application of the service brake will override the automatic high idle and reset timer. The vehicle shall be equipped with a high-idle speed virtual button on the vehicle display and control screen to activate/deactivate manual control only. It shall be pre-set so when activated, it will operate the engine at the specified RPM to increase alternator output. This device shall operate only when the engine is running, the transmission is in neutral, and with the parking brake set. When automatically engaged the high idle shall disengage when the operator depresses the brake pedal, or the transmission is placed in gear, and shall be available to manually or automatically re-engage when the brake pedal is released, or when the transmission is placed in neutral. Virtual control screen shall not override automatic high idle between voltage parameters during timed cycle. Display shall indicate when high idle is disabled, enabled, or active.

1710-001

ENGINE PROGRAMMING ROAD SPEED GOVERNOR

The engine shall include programming which will govern the top speed of the vehicle.

1713-010

AUXILIARY ENGINE BRAKE

A compression brake, for the six (6) cylinder engine shall be provided. A cutout relay shall be installed to disable the compression brake when in pump mode or when an ABS event occurs. The engine compression brake shall activate upon 0% accelerator when in operation mode and actuate the vehicle's brake lights.

The engine shall utilize a variable geometry turbo (VGT) as an integrated auxiliary engine brake to offer a variable rate of exhaust flow, which when activated in conjunction with the compression brake shall enhance the engine's compression braking capabilities.

1708-008

AUXILIARY ENGINE BRAKE CONTROL



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An engine compression brake control device shall be included. The electronic control device shall monitor various conditions and shall activate the engine brake only if all of the following conditions are simultaneously detected:

- ▣ A valid gear ratio is detected.
- ▣ The driver has requested or enabled engine compression brake operation.
- ▣ The throttle is at a minimum engine speed position.
- ▣ The electronic controller is not presently attempting to execute an electronically controlled final drive gear shift.

The compression brake shall be controlled via an off/low/medium/high virtual button on the vehicle display and control screen. The system shall remember and default to the last engine brake control setting when the vehicle is shut off and re-started.

1720-003

ELECTRONIC ENGINE OIL LEVEL INDICATOR

The engine oil shall be monitored electronically and shall send a signal to activate a warning in the instrument panel when levels fall below normal. The warning shall activate in a low oil situation upon turning on the master battery and ignition switches without the engine running.

1715-001

FLUID FILLS

The front of the chassis shall accommodate fluid fill for the engine oil through the grille. This area shall also accommodate a check for the engine oil. The transmission, power steering, and coolant fluid fills and checks shall be under the cab. The windshield washer fill shall be accessible through the front left side mid step.

1735-001

ENGINE DRAIN PLUG

The engine shall include an original equipment manufacturer installed oil drain plug.

8002-001

ENGINE WARRANTY

The Cummins engine shall be warranted for a period of five (5) years or 100,000 miles, whichever occurs first.

1707-116

REMOTE THROTTLE HARNESS

An apparatus interface wiring harness for the engine and transmission pump interlocks shall be supplied with the chassis. The harness shall include a connector for connection to a chassis pump panel harness supplied by the body builder and shall terminate in the left frame rail behind the cab for connection by the body builder. The harness shall include circuits deemed



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for a pump panel and shall contain circuits for a hand throttle, and a multiplexed gauge. Separate circuits shall also be included for a pump control switch, "Pump Engaged" and "OK to Pump" indicator lights, open compartment ground, start signal, park brake ground, ignition signal, master power, clean power, customer ignition, air horn solenoid switch, high idle switch and high idle indicator light. The harness shall contain interlocks that will prevent shifting to road or pump mode unless the transmission output speed translates to less than 1 mph and the transmission is in neutral. The shift to pump mode shall also require the park brake be set.

1721-001

ENGINE PROGRAMMING REMOTE THROTTLE

The engine ECM (Electronic Control Module) discreet wire remote throttle circuit shall be turned off for use with a J1939 based pump controller or when the discreet wire remote throttle controls are not required.

1727-003

ENGINE PROGRAMMING IDLE SPEED

The engine low idle speed will be programmed at 750 rpm.

2801-010

ENGINE AIR INTAKE

The engine air intake system shall include an ember separator. This ember separator shall be designed to protect the downstream air filter from embers using a combination of unique flat and crimped metal screens packaged in a heavy duty galvanized steel frame. This multilayered screen shall trap embers and allow them to burn out before passing through the pack.

The engine air intake system shall also include an air cleaner mounted above the radiator. This air cleaner shall utilize a replaceable dry type filter element designed to prevent dust and debris from being ingested into the engine. A service cover shall be provided on the housing, reducing the chance of contaminating the air intake system during air filter service.

The air intake system shall include a restriction indicator light in the warning light cluster on the instrument panel, which shall activate when the air cleaner element requires replacement.

2704-016

ENGINE FAN DRIVE

The engine cooling system fan shall incorporate a thermostatically controlled, Horton fully variable type fan drive with SmartClutch J-1939 CAN controller.

The variable speed fan clutch only engages at the amount needed for proper cooling to facilitate improved vehicle performance, cab heating in cold climates, and fuel economy. The fan clutch design shall be fail-safe so that if the clutch drive fails the fan shall engage to prevent engine overheating due to the fan clutch failure. The fan speed shall include a J-1939 CAN clutch controller to receive signal from the engine control module to activate at variable rates of



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speed. Variable speeds shall be set through thermostatic and engine speed signals to run as efficiently and quietly as required to maintain temperature.

2701-021

ENGINE COOLING SYSTEM

There shall be a heavy-duty aluminum cooling system designed to meet the demands of the emergency response industry. The cooling system shall have the capacity to keep the engine properly cooled under all conditions of road and pumping operations. The cooling system shall be designed and tested to meet or exceed the requirements specified by the engine and transmission manufacturer and all EPA requirements. The complete cooling system shall be mounted to isolate the entire system from vibration or stress. The individual cores of the cooling system shall be mounted in a manner to allow expansion and contraction at various rates without inducing stress into the adjoining cores.

The cooling system shall be comprised of a charge air cooler to radiator serial flow package that provides the maximum cooling capacity for the specified engine as well as serviceability. The main components shall include a surge tank, a charge air cooler bolted to the front of the radiator, recirculation shields, a shroud, a fan, and required tubing.

The radiator shall be a down-flow design constructed with aluminum cores, plastic end tanks, and a steel frame. The radiator shall be equipped with a drain cock to drain the coolant for serviceability.

The cooling system shall include a one piece injected molded polymer fan with a three (3) piece fiberglass fan shroud.

The cooling system shall be equipped with a surge tank that is capable of removing entrained air from the system. The surge tank shall be equipped with a low coolant probe and rearward oriented sight glass to observe coolant in the system. A cold fill and observation line shall be included within the frame mounted translucent recovery bottle to monitor the level of the coolant. The surge tank shall have a dual seal cap that meets the engine manufacturer's pressure requirements and allows for expansion and recovery of coolant into a separate integral expansion chamber.

All radiator tubes shall be formed from aluminized steel tubing. Recirculation shields shall be installed where required to prevent heated air from reentering the cooling package and affecting performance.

The charge air cooler shall be a cross-flow design constructed completely of aluminum with cast tanks. All charge air cooler tubes shall be formed from aluminized steel tubing and installed



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with silicone hump hoses and stainless steel "constant torque" style clamps meeting the engine manufacturer's requirements.

The radiator and charge air cooler shall be removable through the bottom of the chassis.

2711-005

ENGINE COOLING SYSTEM PROTECTION

The engine cooling system shall include a recirculation shield designed to act as a light duty skid plate below the radiator to provide additional protection for the engine cooling system from light impacts, stones, and road debris. The skid plate shall be painted to match the frame components.

2708-001

ENGINE COOLANT

The cooling package shall include Extended Life Coolant (ELC). The use of ELC provides longer intervals between coolant changes over standard coolants providing improved performance. The coolant shall contain a 50/50 mix of ethylene glycol and de-ionized water to keep the coolant from freezing to a temperature of -34 degrees Fahrenheit.

Proposals offering supplemental coolant additives (SCA) shall not be considered, as this is part of the extended life coolant makeup.

2706-003

ELECTRONIC COOLANT LEVEL INDICATORThe instrument panel shall feature a low engine coolant indicator light which shall be located in the center of the instrument panel. An audible tone alarm shall also be provided to warn of a low coolant incident.

2709-001

COOLANT HOSES

The cooling systems hose shall be formed silicone hose and formed aluminized steel tubing and include stainless steel constant torque band clamps.

2710-005

ENGINE COOLANT OVERFLOW BOTTLE

A remote engine coolant overflow expansion bottle shall be provided in the case of over filling the coolant system. The overflow bottle shall capture the expansion fluid or overflow rather than allow the fluid to drain on the ground.

2705-002

ENGINE PUMP HEAT EXCHANGER

A single bundle type coolant to water heat exchanger shall be installed between the engine and the radiator. The heat exchanger shall be designed to prohibit water from the pump from



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coming in contact with the engine coolant. This shall allow the use of water from the discharge side of the pump to assist in cooling the engine.

2901-068

ENGINE EXHAUST SYSTEM

The exhaust system shall include an end-in end-out horizontally mounted single module after treatment device, and downpipe from the charge air cooled turbo. The single module shall include four temperature sensors, diesel particulate filter (DPF), urea dosing module (UL2), and a selective catalytic reduction (SCR) catalyst to meet current EPA standards. The selective catalytic reduction catalyst utilizes a diesel exhaust fluid solution consisting of urea and purified water to convert NOx into nitrogen, water, and trace amounts of carbon dioxide. The solution shall be mixed and injected into the system through the DPF and SCR.

The system shall utilize 0.07 inch thick stainless steel exhaust tubing between the engine turbo and the DPF. Zero leak clamps seal all system joints between the turbo and DPF.

The single module after treatment through the end of the tailpipe shall be connected with zero leak clamps. The discharge shall terminate horizontally on the right side of the vehicle ahead of the rear tires.

The exhaust system after treatment module shall be mounted below the frame in the inboard position.

2907-003

DIESEL EXHAUST FLUID TANK

The exhaust system shall include a molded cross linked polyethylene tank for Diesel Exhaust Fluid (DEF). The tank shall have a capacity of six (6) usable gallons and shall be mounted on the left hand side of the chassis frame behind the batteries below the frame.

The DEF tank shall be designed with capacity for expansion in case of fluid freezing. Engine coolant, which shall be thermostatically controlled, shall be run through lines in the tank to help prevent the DEF from freezing and to provide a means of thawing the fluid if it should become frozen.

The tank fill tube shall be routed under the rear of the cab with the fill neck and splash guard accessible in the top rear step.

2902-010

ENGINE EXHAUST ACCESSORIES

An exhaust temperature mitigation device shall be shipped loose for installation by the body manufacturer on the vehicle. The temperature mitigation device shall lower the temperature of the exhaust by combining ambient air with the exhaust gasses at the exhaust outlet.

2906-002

ENGINE EXHAUST WRAP

The exhaust tubing between the engine turbo and the diesel particulate filter (DPF) shall be wrapped with a thermal cover in order to retain the necessary heat for DPF regeneration. The exhaust wrap shall also help protect surrounding components from radiant heat which can be transferred from the exhaust.

The exhaust flex joint shall not include the thermal exhaust wrap.

8018-002

EMISSIONS SYSTEMS WARRANTY

Purchaser shall receive a Regulated Emissions Systems Five (5) Years or 100,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0140. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

1801-017

TRANSMISSION

The drive train shall include an Allison model EVS 4000 torque converting, automatic transmission which shall include electronic controls. The transmission shall feature two (2) 10-bolt PTO pads located on the converter housing.

The transmission shall include two (2) internal oil filters which shall offer Allison formulated Castrol TranSynd™ synthetic transmission fluid which shall be utilized in the lubrication of the EVS transmission. An electronic oil level sensor shall be included with the readout located in the shift selector.

The transmission gear ratios shall be:
1st 3.51:1

2nd 1.91:1
 3rd 1.43:1
 4th 1.00:1
 5th 0.74:1
 6th 0.64:1 (if
 applicable) Rev 4.80:1

1806-001 TRANSMISSION MODE PROGRAMMING

The transmission, upon start-up, will automatically select a four (4) speed operation. The fifth speed over drive shall be available with the activation of the mode button on the shifting pad.

1811-004

TRANSMISSION FEATURE PROGRAMMING

The Allison Gen V/VI-E transmission EVS group package number 127 shall contain the 198 vocational package in consideration of the duty of this apparatus as a pumper. This package shall incorporate an automatic neutral with selector override. This feature commands the transmission to neutral when the park brake is applied, regardless of drive range requested on the shift selector. This requires re-selecting drive range to shift out of neutral for the override.

This package shall be coupled with the use of a split shaft PTO and incorporate pumping circuits. These circuits shall be used allowing the vehicle to operate in the fourth range lockup while operating the pump mode due to the 1 to 1 ratio through the transmission, therefore the output speed of the engine is the input speed to the pump. The pump output can be easily calculated by using this input speed and the drive ratio of the pump itself to rate the gallons of water the pump can provide.

A transmission interface connector shall be provided in the cab. This package shall contain the following input/output circuits to the transmission control module. The Gen V/VI-E transmission shall include prognostic diagnostic capabilities. These capabilities shall include the monitoring of the fluid life, filter change indication, and transmission clutch maintenance.

<u>Function ID</u>	<u>Description</u>	<u>Wire</u>
Inputs		
C	PTO Request	142
J	Fire Truck Pump Mode (4th Lockup)	122 / 123
Outputs		
C	Range Indicator	145 (4th)
G	PTO Enable Output	130
	Signal Return	103

1807-005

TRANSMISSION SHIFT SELECTOR

An Allison pressure sensitive range selector touch pad shall be provided and located to the right of the driver within clear view and easy reach. The shift selector shall have a graphical Vacuum Florescent Display (VFD) capable of displaying two lines of text. The shift selector

shall provide mode indication and a prognostic indicator (wrench symbol) on the digital display. The prognostics monitor various operating parameters and shall alert you when a specific maintenance function is required.

1815-002

ELECTRONIC TRANSMISSION OIL LEVEL INDICATOR

The transmission fluid shall be monitored electronically.

1814-002

TRANSMISSION PRE-SELECT WITH AUXILIARY BRAKE

When the auxiliary brake is engaged, the transmission shall automatically shift to second gear to decrease the rate of speed assisting the secondary braking system and slowing the vehicle.

1808-007

TRANSMISSION COOLING SYSTEM

The transmission shall include a water to oil cooler system located in the cooling loop between the radiator and the engine. The transmission cooling system shall meet all transmission manufacturer requirements. The transmission cooling system shall feature continuous flow of engine bypass water to maintain uninterrupted transmission cooling.

1817-001

TRANSMISSION DRAIN PLUG

The transmission shall include an original equipment manufacturer installed magnetic transmission fluid drain plug.

8005-001

TRANSMISSION WARRANTY

The Allison EVS series transmission shall be warranted for a period of five (5) years with unlimited mileage. Parts and labor shall be included in the warranty.

2004-003

LH PTO

A ten (10) bolt standard duty clutched drive PTO shall be provided by the chassis manufacturer and installed on the transmission. Installation shall include mounting of the PTO and wiring the unit with a control switch.

2001-154

LH PTO MODEL

A ten (10) bolt Chelsea model 281-GGFJP-B5XD heavy duty transmission driven PTO shall be installed. The clutched shifted PTO is designed specifically for the Allison world transmission and provides an intermittent and continuous torque rating of 360 lb. ft.

2005-008

PTO LOCATION

The transmission shall have two (2) power take off (PTO) mounting locations, one (1) in the 8:00 o'clock position and one (1) in the 1:00 o'clock position.

2015-030

LH PTO CONTROL

Switches for the power take off shall be wired to the V-mux node to be used by the OEM. There shall be an on/off rocker switch labeled "Aerial Master" wired to a V-mux input and output with integral light wired to the v-mux input terminal of the switch that shall illuminate when the switch is on and the v-mux output is active. The switches shall be located on dash. There shall be an on/off rocker switch labeled "Aerial PTO" activated by the "Aerial Master" rocker

3001-015

DRIVELINE

All drivelines shall be heavy duty metal tube and equipped with MSI 1810 series universal joints. The shafts shall be dynamically balanced prior to installation to alleviate future vibration. In areas of the driveline where a slip shaft is required, the splined slip joint shall be coated with Glide Coat®. The drivelines shall include Meritor brand u-joints with thrust washers.

3005-074

MIDSHIP PUMP / GEARBOX

A temporary jackshaft driveline shall be installed by the chassis manufacturer to accommodate the mid-ship split shaft pump as specified by the apparatus manufacturer. Holes shall be provided in the frame as specified by the OEM for mounting a Smeal aerial pump module.

See PDF for specific hole pattern.

3008-085

MIDSHIP PUMP / GEARBOX
MODEL

The midship pump/gearbox provisions shall be for a Waterous CSUC20 or C22 pump.

3048-007

MIDSHIP PUMP GEARBOX DROP

The Waterous pump gearbox shall have a "C" (medium length) drop length.

3009-008

MIDSHIP PUMP RATIO

The ratio for the midship pump shall be 2.46:1.

3010-1150

MIDSHIP PUMP LOCATION C/L SUCTION TO C/L REAR AXLE

The midship pump shall be located so the dimension from the centerline of the suction to the centerline of the rear axle is 115.00 inches.

5013-032

PUMP SHIFT CONTROLS

One (1) air pump shift control panel shall be located on the left hand side of the engine tunnel, integrated with the shifter pod. The following shall be provided on the panel: a three (3) position control lever; an engraved PUMP ENGAGED identification light; and an engraved OK TO PUMP identification light. The pump shift control panel shall be black with a yellow border outline and shall include pump instructions. An instruction plate describing the transmission shift selector position used for pumping shall be provided and located so it can be read from the driver's position per NFPA 16.10.1.3. The road mode shall be selected when the control lever is in the forward position and pump mode shall be selected when the control lever is in the rearward position.

The control lever center position shall exhaust air from both pump and road sides of the pump gear box shift cylinder.

3049-003

PUMP SHIFT CONTROL PLUMBING

Air connections shall be provided from the air supply tank to the pump shift control valve and from the pump shift control valve to the frame mounted bracket. The frame mounted bracket shall include labeling identifying the pump and road connection points with threaded 0.25 inch NPT fittings on the solenoid for attaching the customer installed pump. The air supply shall be pressure protected from service brake system.

3109-064

FUEL FILTER/WATER SEPARATOR

The fuel system shall have a Racor GreenMAX 6600R fuel filter/water separator as a primary filter. The fuel filter shall have a drain valve and a see-through cover to allow visual inspection of fuel and filter condition. The Racor 6600R shall meet engine requirements for particulate size, collection capacity, removal efficiency, and water removal efficiency. The filter shall be capable of handling a maximum flow rate of 150 gallons per hour.

A secondary fuel filter shall be included as approved by the engine manufacturer.

An instrument panel lamp and audible alarm which indicates when water is present in the fuel-water separator shall also be included.

3111-002

FUEL LINES

The fuel system supply and return lines installed from the fuel tank to the engine shall be black textile braided lines which are reinforced with braided high tensile steel wire. The fuel lines shall be connected with reusable steel fittings.

3104-012

FUEL SHUTOFF VALVE

There shall be two (2) fuel shutoff valves which shall be installed, one (1) in the fuel draw line at the primary fuel filter and one (1) in the fuel outlet line at the primary fuel filter to allow the fuel filters to be changed without loss of fuel to the fuel pump.

A third fuel shutoff valve shall be installed in the fuel draw line, near the fuel tank to allow maintenance to be performed with minimal loss of fuel.

3103-008

ELECTRIC FUEL PRIMER

Integral to the engine assembly is an electric lift pump that serves the purpose of pre-filter fuel priming.

3112-018

FUEL COOLER

A fuel cooler shall be provided to lower fuel temperature allowing the vehicle to operate at higher ambient temperatures. The fuel cooler shall include an electrical fan and temperature-controlled relay switch.

3101-102

FUEL TANK

The fuel tank shall have a capacity of sixty-eight (68) gallons and shall measure 35.00 inches in width X 17.00 inches in height X 29.00 inches in length.

The baffled tank shall have a vent port to facilitate venting to the top of the fill neck for rapid filling without "blow-back" and a roll over ball check vent for temperature related fuel expansion and draw.

The tank is designed with dual draw tubes and sender flanges. The tank shall have 2.00 inch NPT fill ports for right or left hand fill. A 0.50 inch NPT drain plug shall be centered in the bottom of the tank.

The fuel tank shall be mounted below the frame, behind the rear axle. Two (2) three-piece strap hanger assemblies with "U" straps bolted midway on the fuel tank front and rear shall be utilized to allow the tank to be easily lowered and removed for service purposes. Rubber isolating pads shall be provided between the tank and the upper tank mounting brackets. Strap mounting studs through the rail, hidden behind the body shall not be acceptable.

3130-001

FUEL TANK MATERIAL AND FINISH

The fuel tank shall be constructed of 12 gauge aluminized steel. The exterior of the tank shall be powder coated black and then painted to match the frame components.

All powder coatings, primers and paint shall be compatible with all metals, pretreatments and primers used. The cross hatch adhesion test per ASTM D3359 Method B, results to be 5B minimum. The pencil hardness test per ASTM D3363 shall have a final post-cured pencil hardness of H-2H. The direct impact resistance test per ASTM D2794, results to be 5B minimum.

Any proposals offering painted fuel tanks with variations from the above process shall not be accepted. The film thickness of vendor supplied parts shall also be sufficient to meet the performance standards as stated above.

3131-001

FUEL TANK STRAP MATERIAL

The fuel tank straps shall be constructed of ASTM A-36 steel. The fuel tank straps shall be powder coated black and then painted to match the frame components if possible.

3132-011

FUEL TANK MISCELLANEOUS OPTIONS

The fuel tank shall be temporarily mounted, to be permanently relocated by the OEM. The tank and mounting straps as specified shall be included with the chassis along with components for permanent standard installation.

3102-016

FUEL TANK FILL PORT

The fuel tank fill ports shall be provided with two (2) left fill ports located one (1) in the forward position and one (1) in the middle position and the right fill port located in the middle position of the fuel tank.

3114-006

FUEL TANK SERVICEABILITY PROVISIONS

The chassis fuel lines and sender wiring shall have additional length provided so the tank can be easily lowered and removed for service purposes. The additional 12.00 feet of length shall be located above the fuel tank and shall be coiled and secured. The fuel line fittings shall be pointed towards the right side (curbside) of the chassis.

3115-002

FUEL TANK DRAIN PLUG

A 0.5 inch NPT magnetic drain plug shall be centered in the bottom of the fuel tank.

2401-039

FRONT AXLE

The front axle shall be a Hendrickson STEERTEK Non-drive front axle, NXT Fire/Rescue model. The axle shall include a 3.74 inch drop and a 70.87 inch king pin intersection (KPI). The axle shall be a box- shaped fabricated beam with integrated suspension. The axle shall include a conventional style hub with a standard knuckle. The weight capacity for the axle shall be rated to 24,000 pounds.

2405-001

FRONT WHEEL BEARING LUBRICATION

The front axle wheel bearings shall be lubricated with oil. The oil level can be visually checked via clear inspection windows in the front axle hubs.

2502-006

FRONT SHOCK ABSORBERS

Shock absorbers shall be supplied by the suspension manufacturer and installed on the front axle suspension.

2501-019

FRONT SUSPENSION

The front suspension shall include a parabolic leaf spring pack integrated into the Hendrickson STEERTEK NXT axle consisting of 58.40 inches long and 4.00 inches wide tapered leaf springs and shall feature a military double wrapped front eye. Spring eyes shall have Hendrickson's proprietary threaded pin bushings to increase roll stiffness. The spring capacity shall be rated specifically to the axle configuration from 18,000 and up to 24,000 pounds.

2601-006

STEERING COLUMN/ WHEEL

The cab shall include a Douglas Autotech steering column which shall include a seven (7) position tilt, a 2.25 inch telescopic adjustment, and an 18.00 inch, four (4) spoke steering wheel located at the driver's position. The steering wheel shall be covered with black polyurethane foam padding.

The steering column shall contain a horn button, self-canceling turn signal switch, four-way hazard switch and headlamp dimmer switch.

2609-002

ELECTRONIC POWER STEERING FLUID LEVEL INDICATOR

The power steering fluid shall be monitored electronically and shall send a signal to activate an audible alarm and visual warning in the instrument panel when fluid level falls below normal.

2603-011

POWER STEERING PUMP

The hydraulic power steering pump shall be a TRW PS and shall be gear driven from the engine. The pump shall be a balanced, positive displacement, sliding vane type. The power steering system shall include an oil to air passive cooler.

2606-016

FRONT AXLE CRAMP ANGLE

The chassis shall have a front axle cramp angle of 45-degrees to the left and 43-degrees to the right.

2610-005

POWER STEERING GEAR

The power steering gear shall be a TRW model TAS 85 with an assist cylinder.

2608-001

CHASSIS ALIGNMENT

The chassis frame rails shall be measured to insure the length is correct and cross checked to make sure they run parallel and are square to each other. The front and rear axles shall be laser aligned. The front tires and wheels shall be aligned and toe-in set on the front tires by the chassis manufacturer.

3401-031

REAR AXLE

The rear axle shall be a Meritor model RS-35-185 single drive axle. The axle shall include precision forged, single reduction differential gearing, and shall have a fire service rated capacity of 35,000 pounds.

The axle shall be built of superior construction and quality components to provide the rugged dependability needed to stand up to the fire industry's demands. The axle shall include rectangular shaped, hot-formed housing with a standard wall thickness of 0.56 of an inch for extra strength and rigidity and a rigid differential case for high axle strength and reduced maintenance.

The axle shall have heavy-duty Hypoid gearing for longer life, greater strength and quieter operation. Industry-standard wheel ends for compatibility with both disc and drum brakes, and unitized oil seal technology to keep lubricant in and help prevent contaminant damage will be used.

3403-001

REAR AXLE DIFFERENTIAL LUBRICATION

The rear axle differential shall be lubricated with oil.

8061-020

REAR AXLE WARRANTY

The rear axle shall be warranted by Meritor for five (5) years with unlimited miles under the general service application. Details of the Meritor warranty are provided on the PDF document attached to this option.

3411-001

REAR WHEEL BEARING LUBRICATION

The rear axle wheel bearings shall be lubricated with oil.

3407-010

REAR AXLE DIFFERENTIAL CONTROL

A driver controlled differential lock shall be installed on the rear axle. This feature shall allow the main differential to be locked and unlocked when encountering poor road or highway conditions, where maximum traction is needed, for use at speeds no greater than 25 MPH. The differential lock shall be controlled by a virtual button on the vehicle display and control screen. The vehicle display shall also indicate when positive engagement of the differential control has occurred.

3408-003

VEHICLE TOP SPEED

The top speed of the vehicle shall be approximately 60 MPH +/-2 MPH at governed engine RPM.

3501-056

REAR SUSPENSION

The single rear axle shall feature a Hendrickson Roadmaax™ air suspension. The suspension shall include two optimized air springs mounted to cast structural trailing arms, a transverse cross beam for increased roll stability and two heavy duty shock absorbers. Dual air height control valves shall be installed to ensure equal frame height on both sides of the vehicle regardless of the load. Axle alignment is maintained using two eccentric bushings at each frame bracket.

The rear axle weight of the complete vehicle shall be a minimum of 12,500 pounds unladen. The rear suspension capacity shall be rated at 35,000 pounds.

3503-003

REAR SHOCK ABSORBERS

Shock absorbers shall be supplied by the suspension manufacturer and installed on the rear axle suspension.

3625-002

TIRE INTERMITTENT SERVICE RATING

The chassis shall be rated using Intermittent Service ratings provided to the emergency vehicle market by the tire manufacturers as the basis for determining the maximum vehicle load and speed.

3601-063

FRONT TIRE

The front tires shall be Michelin 425/65R-22.5 20PR "L" tubeless radial XZY3 mixed service tread.

The front tire stamped load capacity shall be 22,800 pounds per axle with a nominal speed rating of 65 miles per hour when properly inflated to 120 pounds per square inch.

The Michelin Intermittent Service Rating maximum load capacity shall be 24,396 pounds per axle with a maximum speed of 65 miles per hour when properly inflated to 120 pounds per square inch.

The Michelin Intermittent Service Rating maximum speed capacity shall be 22,800 pounds per axle with a speed rating of 75 miles per hour when properly inflated to 120 pounds per square inch.

The Michelin Intermittent Service Rating limits the operation of the emergency vehicle to no more than fifty (50) miles of continuous operation under maximum recommended payload, or without stopping for at least twenty (20) minutes. The emergency vehicle must reduce its speed to no more than 50 MPH after the first fifty (50) miles of travel.

3602-019

REAR TIRE

The rear tires shall be Michelin 315/80R-22.5 20PR "L" tubeless radial XDN2 Grip all weather tread.

The rear tire stamped load capacity shall be 33,080 pounds per axle with a nominal speed rating of 75 miles per hour when properly inflated to 130 pounds per square inch.

The Michelin Intermittent Service Rating maximum load capacity shall be 35,396 pounds per axle with a maximum speed of 75 miles per hour when properly inflated to 130 pounds per square inch.

The Michelin Intermittent Service Rating maximum speed capacity shall match the nominal speed rating.

The Michelin Intermittent Service Rating limits the operation of the emergency vehicle to no more than fifty (50) miles of continuous operation under maximum recommended payload, or without stopping for at least twenty (20) minutes. The emergency vehicle must reduce its speed to no more than 50 MPH after the first fifty (50) miles of travel.

3413-538

REAR AXLE RATIO

The rear axle ratio shall be 5.38:1.

3614-030

TIRE PRESSURE INDICATOR

There shall be electronic chrome LED valve caps shipped loose for installation by the OEM which shall illuminate with a red LED when tire pressure drops 8psi provided. The valve caps are self-calibrating and set to the pressure of the tire upon installation.

3701-034

FRONT WHEEL

The front wheels shall be Alcoa hub piloted, 22.50 inch X 12.25 inch aluminum wheels. The outer face of the wheels shall feature Alcoa's Dura-Bright® finish as an integral part of the wheel surface. Alcoa Dura-Bright® wheels keep their shine without polishing. Brake dust, grime and road debris are easily removed by simply cleaning the wheels with soap and water. The hub piloted mounting system shall provide easy installation and shall include two-piece flange nuts.

3703-050
REAR WHEEL

The rear wheels shall be Alcoa hub piloted, 22.50 inch X 9.00 inch aluminum wheels with a polished outer surface and Alcoa Dura-Bright® wheel treatment as an integral part of the wheel surface. The inner rear wheels shall be Alcoa hub piloted, 22.50 inch X 9.00 inch aluminum wheels with a polished inner and outer surface and Alcoa Dura-Bright® wheel treatment as an integral part of the wheel surface. The hub piloted mounting system shall provide easy installation and shall include two-piece flange nuts.

3719-002
BALANCE WHEELS AND TIRES

All of the wheels and tires, including any spare wheels and tire assemblies, shall be dynamically balanced.

3702-002
WHEEL TRIM

The front wheels shall include stainless steel lug nut covers and stainless steel baby moons shipped loose with the chassis for installation by the apparatus builder. The baby moons shall have cutouts for oil seal viewing when applicable.

The rear wheels shall include stainless steel lug nut covers and band mounted spring clip stainless steel high hats shipped loose with the chassis for installation by the apparatus builder.

The lug nut covers, baby moons, and high hats shall be RealWheels® brand constructed of 304L grade, non-corrosive stainless steel with a mirror finish. Each wheel trim component shall meet D.O.T. certification.

3205-014
BRAKE SYSTEM

A rapid build-up air brake system shall be provided. The air brakes shall include, at a minimum, a two (2) air tank, three (3) reservoir system with a total of 4152 cubic inch of air capacity. A floor mounted treadle valve shall be mounted inside the cab for graduated control of applying and releasing the brakes. An inversion valve shall be installed to provide a service brake application in the unlikely event of primary air supply loss. All air reservoirs provided on the chassis shall be labeled for identification.

The rear axle spring brakes shall automatically apply in any situation when the air pressure falls below 25 PSI and shall include a mechanical means for releasing the spring brakes when necessary. An audible alarm shall designate when the system air pressure is below 60 PSI.

A four (4) sensor, four (4) modulator Anti-lock Braking System (ABS) shall be installed on the front and rear axles in order to prevent the brakes from locking or skidding while braking during hard stops or on icy or wet surfaces. This in turn shall allow the driver to maintain steering control under heavy braking and in most instances, shorten the braking distance. The electronic monitoring system shall incorporate diagonal circuitry which shall monitor wheel speed during braking through a sensor and tone ring on each wheel. A dash mounted ABS lamp shall be provided to notify the driver of a system malfunction. The ABS system shall automatically disengage the auxiliary braking system device when required. The speedometer screen shall be capable of reporting all active defaults using PID/SID and FMI standards.

Additional safety shall be accommodated through Automatic Traction Control (ATC) which shall be installed on the single rear axle. The ATC system shall apply the ABS when the drive wheels lose traction. The system shall scale the electronic engine throttle back to prevent wheel spin while accelerating on ice or wet surfaces.

A virtual button on the vehicle display and control screen shall be provided and properly labeled "mud/snow". When the switch is pressed once, the system shall allow a momentary wheel slip to obtain traction under extreme mud and snow conditions. During this condition the ATC light shall blink continuously notifying the driver of activation. Pressing the switch again shall deactivate the mud/snow feature.

The Electronic Stability Control (ESC) unit is a functional extension of the electronic braking system. It is able to detect any skidding of the vehicle about its vertical axis as well as any rollover tendency. The control unit comprises an angular-speed sensor that measures the vehicle's motion about the vertical axis, caused, for instance, by cornering or by skidding on a slippery road surface. An acceleration sensor measures the vehicle's lateral acceleration. The Controller Area Network (CAN) bus provides information on the steering angle. On the basis of lateral acceleration and steering angle, an integrated microcontroller calculates a theoretical angular speed for the stable vehicle condition.

3206-003

FRONT BRAKES

The front brakes shall be Meritor EX225 Disc Plus disc brakes with 17.00 inch vented rotors.

3207-009

REAR BRAKES

The rear brakes shall be Meritor 16.50 inch X 8.63 inch S-cam drum type. The brakes shall feature a cast iron shoe.

3208-001

PARK BRAKE

Upon application of the push-pull valve in the cab, the rear brakes will engage via mechanical spring force. This is accomplished by dual chamber rear brakes, satisfying the FMVSS parking brake requirements.

3219-002

SUPPLEMENTAL BRAKE

A supplemental brake engagement shall be supplied that can only be engaged while the rear spring brakes are engaged. In addition to the mechanical rear brake engagement, the front service brakes shall also be engaged via air pressure, providing additional braking capability. Front service brake activation shall be accomplished with activation of the rear mechanical park brake valve.

3204-025

PARK BRAKE CONTROL

A Meritor-Wabco manual hand control push-pull style valve shall operate the parking brake system. The control shall be yellow in color.

The parking brake actuation valve shall be mounted in the switch panel. A horizontal orientation guard shall be installed over the parking brake control to prevent accidental application or release.

3214-002

REAR BRAKE SLACK ADJUSTERS

Haldex rear brake automatic slack adjusters shall be installed on the axle.

3202-005

AIR DRYER

The brake system shall include a Wabco System Saver 1200 air dryer with an integral heater with a Metri-Pack sealed connector. The air dryer incorporates an internal turbo cutoff valve that closes the path between the air compressor and air dryer purge valve during the compressor "unload" cycle. The turbo cutoff valve allows purging of moisture and contaminants without the loss of turbo boost pressure. The air dryer shall be mounted behind the battery box on the left hand side.

3215-009

FRONT BRAKE CHAMBERS

The front brakes shall be provided with type 24 brake chambers as supplied with the Hendrickson STEERTEK NXT axle.

3210-022

REAR BRAKE CHAMBERS

The rear axle shall include a piston style MGM 30/30 long stroke brake chambers which shall convert the energy of compressed air into mechanical force and motion. This shall actuate the brake camshaft, which in turn operates the foundational brake mechanism forcing the brake shoes against the brake drum.

3320-009

AIR COMPRESSOR

The air compressor provided for the engine shall be a naturally aspirated Wabco® SS440 single cylinder pass-through drive type compressor which shall be capable of producing 26.0 CFM at 1200 engine RPMs. The compressor shall include an aluminum cylinder head which shall improve cooling, reduce weight and decrease carbon formation.

3339-004

AIR GOVERNOR

An air governor shall be provided to control the cut-in and cut-out pressures of the engine mounted air compressor. The governor shall be calibrated to meet FMVSS requirements. The air governor shall be located on the air dryer bracket.

3303-005

MOISTURE EJECTORS

Automatic moisture ejectors with a manual drain provision shall be installed on all reservoirs of the air supply system. The manual drain provision shall include an actuation pull cable coiled and tied at each drain valve. The supplied cables when extended shall be sufficient in length to allow each drain to be activated from the side of the apparatus.

3307-001

AIR SUPPLY LINES

The air system on the chassis shall be plumbed with color coded reinforced nylon tubing air lines. The primary (rear) brake line shall be green, the secondary (front) brake line red, the parking brake line orange and the auxiliary (outlet) will be blue.

Brass compression type fittings shall be used on the nylon tubing. All drop hoses shall include fiber reinforced neoprene covered hoses.

3309-033

AIR INLET CONNECTION

An air connection for the shoreline air inlet shall be supplied.

3349-002

AIR INLET LOCATION

The air inlet shall be installed in the left hand side lower front step in the forward position.

3326-002

AIR INLET/ OUTLET FITTING TYPE

The air connector supplied shall be a 0.25 inch size Tru-Flate Interchange style manual connection which is compatible with Milton 'T' style, Myers 0.25 inch Automotive style and Parker 0.25 inch 10 Series connectors.

3338-001

REAR AIR TANK MOUNTING

If a combination of wheel base, air tank quantity, or other requirements necessitate the location of one or more air tanks to be mounted rear of the fuel tank, these tank(s) will be mounted parallel to frame.

2103-2180

WHEELBASE

The chassis wheelbase shall be 218.00 inches.

2106-0540

REAR OVERHANG

The chassis rear overhang shall be 54.00 inches.

2101-002

FRAME

The frame shall consist of double rails running parallel to each other with cross members forming a ladder style frame. The frame rails shall be formed in the shape of a "C" channel, with the outer rail measuring 10.25 inches high X 3.50 inches deep upper and lower flanges X 0.38 inches thick with an inner channel of 9.44 inches high X 3.13 inches deep and 0.38 inches thick. Each rail shall be constructed of 110,000 psi minimum yield high strength low alloy steel. Each double rail section shall be rated by a Resistance Bending Moment (RBM) minimum of 3,213,100 inch pounds and have a minimum section modulus of 29.21 cubic inches. The frame shall measure 35.00 inches in width.

Proposals calculating the frame strength using the "box method" shall not be considered.

Proposals including heat treated rails shall not be considered. Heat treating frame rails produces rails that are not uniform in their mechanical properties throughout the length of the rail. Rails made of high strength, low alloy steel are already at the required yield strength prior to forming the rail.

A minimum of seven (7) fully gusseted 0.25 inch thick cross members shall be installed. The inclusion of the body mounting, or bumper mounting shall not be considered as a cross member. The cross members shall be attached using zinc coated grade 8 fasteners. The bolt heads shall be flanged type, held in place by distorted thread flanged lock nuts. Each cross member shall be mounted to the frame rails utilizing a minimum of 0.25 inch thick gusset reinforcement plates at all corners balancing the area of force throughout the entire frame.

Any proposals not including additional reinforcement for each cross member shall not be considered.

All relief areas shall be cut in with a minimum 2.00 inch radius at intersection points with the edges ground to a smooth finish to prevent a stress concentration point.

2111-144

MISCELLANEOUS FRAME OPTIONS

The frame shall include drillings which shall be specific to mounting a 75.00 foot Smeal substructure.

See PDF for OEM Specified pattern.

2117-004

FRAME CLEAR AREA

The chassis frame shall be left clear of chassis mounted components inside or outside the frame rails within the first 30.00 inches behind the cab to allow space for OEM installed components. Cross members may be installed in the clear area if required for proper frame or driveline configuration.

2110-201

FRAME PAINT

The frame rails shall be hot dip galvanized prior to assembly and attachment of any components. The components that shall be galvanized shall include:

Main frame "C" channel or channels

The frame parts which are not galvanized shall be powder coated prior to any attachment of components. Parts which shall be powder coated shall include but are not limited to:

- Steering gear bracket
- Front splayed rails and fish plates
- Bumper extensions
- Cross members
- Cross member gussets
- Fuel tank mounting brackets
- Fuel tank straps (unless material/finish is specified in 3130 subcat)
- Air tanks (unless color coded tanks are specified in 3205 subcat)
- Air tank mounting brackets
- Exhaust mounting brackets
- Air cleaner skid plate
- Radiator skid plate
- Battery supports, battery trays and battery covers

Other non-galvanized under carriage components which are received from the suppliers with coatings already applied shall include but are not limited to:

- Suspension components
- Front and rear axles

All powder coatings, primers and paint used on the non-galvanized components shall be compatible with all metals, pretreatments and primers used. The cross hatch adhesion test per ASTM D3359 shall not have a fail of more than ten (10) squares. The pencil hardness test per ASTM D3363 shall have a final post-cured pencil hardness of H-2H. The direct impact resistance test per ASTM D2794 shall have an impact resistance of 120.00 inches per pound at 2 mils.

8007-036

FRAME ASSEMBLY STRUCTURAL

Purchaser shall receive a Frame Assembly Structural Fifty (50) Years or 250,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0305. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

8019-003

FRAME RAIL CORROSION

Purchaser shall receive a Frame Rail Corrosion (Zinc Plate and Powder Coat) Twenty Five (25) Years or 150,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0316. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

8022-004

FRAME COMPONENTS CORROSION

Purchaser shall receive a Frame Components Corrosion (Powder Coat) Three (3) Years or 48,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0313. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

2201-002

FRONT BUMPER

The chassis shall be equipped with a severe duty front bumper constructed from structural steel channel. The bumper material shall be 0.38 thick ASTM A36 steel which shall measure 12.00 inches high with a 3.05 inch flange and shall be 99.00 inches wide with angled front corners.

The bumper shall be primed and painted as specified.

2202-005

FRONT BUMPER EXTENSION LENGTH

The front bumper shall be extended approximately 21.00 inches ahead of the cab.

2206-012

FRONT BUMPER PAINT

The front bumper shall be painted the same as the lower cab color. The front bumper trim shall feature a black spray on bedliner coating.

2227-024

FRONT BUMPER TRIM

A stainless steel trim angle, painted to the customer's specifications, shall be installed on the top corner of the bumper across the front and on the top corner of the bumper tails, terminating at the rearmost portion of the apron. The trim angle shall measure approximately 3.00 inches wide on the horizontal flange and 1.60 inches tall on the vertical flange. The trim shall be affixed to the bumper and bolted down to the apron with isolating washers.

2208-006

FRONT BUMPER APRON

The 21.00 inch extended front bumper shall include an apron constructed of 0.19 inch thick embossed aluminum tread plate.

The apron shall be installed between the bumper and the front face of the cab affixed using stainless steel bolts attaching the apron to the top bumper flange.

2237-014

FRONT BUMPER DISCHARGE

The chassis shall include frame mounted 2.50 inch diameter plumbed pipe intended for use as a discharge trash line. The discharge pipe shall be routed from the right hand front splay rail area behind the bumper to the area rear of the front axle, ahead of the battery box.

The discharge pipe shall be a 2.50 inch stainless steel schedule 10 tube. The discharge shall include a Victaulic groove for connecting to the pump and discharge hose plumbing on each end of the tube.

The apparatus manufacturer shall plumb the discharge pipe to the pump and shall provide all valves as required.

2211-035

FRONT BUMPER COMPARTMENT CENTER

The front bumper shall include a compartment in the bumper apron located in the center between the frame rails which may be used as a hose well. The compartment shall be constructed of 0.13 inch 5052- H32 grade aluminum and shall include drain holes in the bottom corners to allow excess moisture to escape. The compartment shall be the full size of available space in the apron from the cab fascia to the bumper and 38.00 inches wide X 10.88 inches deep. The clear opening shall be 37.75 inches wide. The compartment shall include a notched cover constructed of 0.19 inch thick bright embossed aluminum tread plate. The notch shall be located in the right front portion of the cover and shall be 4.00 inches in length with a 2.00 inches wide radius.

2210-002

FRONT BUMPER COMPARTMENT COVER HARDWARE

The front bumper compartment cover(s) shall include gas cylinder stays which shall hold the cover open. Each cover shall be held in the closed position via a D-ring style latch.

5503-022

MECHANICAL SIREN

The front bumper shall include an electro mechanical Federal Q2B™ siren, which shall be streamlined, chrome-plated and shall produce 123 decibels of sound at 10.00 feet. The Q2B™ siren produces a distinctive warning sound that is recognizable at long distances. A unique clutch design provides a longer coast down sound while reducing the amp draw to 100 amps. The siren shall measure 10.50 inches wide X 10.00 inches high X 14.00 inches deep. The siren shall include a pedestal mount to surface mount on a horizontal surface.

2218-002

MECHANICAL SIREN LOCATION

The siren shall be pedestal mounted on the bumper apron on the furthest outboard section of the bumper on the driver side.

5501-020

AIR HORN

The front bumper shall include two (2) Hadley brand E-Tone air horns which shall measure 21.00 inches long with a 6.00 inch round flare. The air horns shall be trumpet style with a chrome finish on the exterior and a painted finish deep inside the trumpet.

2216-010

AIR HORN LOCATION

The air horns shall be recess mounted in the front bumper face, one (1) on the right side of the bumper in the inboard position relative to the right hand frame rail and one (1) on the left side of the bumper in the inboard position relative to the left hand frame rail.

2232-003

AIR HORN RESERVOIR

One (1) air reservoir, with a 2084 cubic inch capacity, shall be installed on the chassis to act as a supply tank for operating air horns. The reservoir shall be isolated with a 90 PSI pressure protection valve on the reservoir supply side to prevent depletion of the air to the air brake system.

5504-030

ELECTRONIC SIREN SPEAKER

There shall be two (2) Cast Products Inc. model SA4301, 100 watt speakers provided. Each speaker shall measure 6.20 inches tall X 7.36 inches wide X 3.06 inches deep. Each speaker shall include a flat mounting flange which shall be polished aluminum.

2217-011

ELECTRONIC SIREN SPEAKER LOCATION

The two (2) electronic siren speakers shall be located on the front bumper face outboard of the frame rails with one (1) on the right side and one (1) on the left side in the outboard positions.

2203-002

FRONT BUMPER TOW HOOKS

Two (2) heavy duty tow hooks, painted to match the frame components, shall be installed below the front bumper in the forward position, bolted directly to the underside of each chassis frame rail with grade 8 bolts.

2301-001

CAB TILT SYSTEM

The entire cab shall be capable of tilting approximately 45-degrees to allow for easy maintenance of the engine and transmission. The cab tilt pump assembly shall be located on the right side of the chassis above the battery box.

The electric-over-hydraulic lift system shall include an ignition interlock and red cab lock down indicator lamp on the tilt control which shall illuminate when holding the "Down" button to indicate safe road operation.

It shall be necessary to activate the master battery switch and set the parking brake in order to tilt the cab. As a third precaution the ignition switch must be turned off to complete the cab tilt interlock safety circuit.

Two (2) spring-loaded hydraulic hold down hooks located outboard of the frame shall be installed to hold the cab securely to the frame. Once the hold-down hooks are set in place, it shall take the application of pressure from the hydraulic cab tilt lift pump to release the hooks.

Two (2) cab tilt cylinders shall be provided with velocity fuses in each cylinder port. The cab tilt pivots shall be 1.90 inch ball and be anchored to frame brackets with 1.25 inch diameter studs.

A steel safety channel assembly, painted safety yellow shall be installed on the right side cab lift cylinder to prevent accidental cab lowering. The safety channel assembly shall fall over the lift cylinder when the cab is in the fully tilted position. A cable release system shall also be provided to retract the safety channel assembly from the lift cylinder to allow the lowering of the cab.

2302-005

CAB TILT AUXILIARY PUMP

A manual cab tilt pump module shall be attached to the cab tilt pump housing/power distribution box.

2303-003

CAB TILT LIMIT SWITCH

A cab tilt limit switch shall be installed. The switch will effectively limit the travel of the cab when being tilted. The limit adjustment of the switch shall be preset by the chassis manufacturer to prevent damage to the cab or any bumper mounted option mounted in the cab tilt arc. Further adjustment to the limit by the apparatus manufacturer shall be available to accommodate additional equipment.

2305-003

CAB TILT CONTROL RECEPTACLE

A 25.00 foot cab tilt control harness shall be provided on the right side of frame just behind the cab. This harness shall consist of an 8.00 foot harness connected to the tilt pump and a 17.00 foot extension harness with a six (6) pin Deutsch connector with cap for mounting in a compartment in the body.

The remote control pendant shall include 20.00 feet of cable with a mating Deutsch connector. The remote control pendant shall be shipped loose with the chassis.

2306-002
CAB TILT LOCK DOWN INDICATOR

The cab dash shall include a message located within the dual air pressure gauge which shall alert the driver when the cab is unlocked and ajar. The alert message shall cease to be displayed when the cab is in the fully lowered position and the hold down hooks are secured and locked to the cab mounts.

In addition to the alert message an audible alarm shall sound when the cab is unlocked and ajar with the parking brake released.

1401-009
CAB WINDSHIELD

The cab windshield shall have a surface area of 2825.00 square inches and be of a two (2) piece wraparound design for maximum visibility.

The glass utilized for the windshield shall include standard automotive tint. The left and right windshield shall be fully interchangeable thereby minimizing stocking and replacement costs.

Each windshield shall be installed using black self locking window rubber.

1402-002
GLASS FRONT DOOR

The front cab doors shall include a window which is 27.00 inches in width X 26.00 inches in height. These windows shall have the capability to roll down completely into the door housing. This shall be accomplished using electric actuation. The left and right front door windows shall be controlled using a switch on each respective side inner door panel. The driver's door shall include a switch for each powered door window in the cab.

There shall be an irregular shaped fixed window which shall measure 2.50 inches wide at the top, 8.00 inches wide at the bottom X 26.00 inches in height, more commonly known as "cozy glass" ahead of the front door roll down windows.

The windows shall be mounted within the frame of the front doors trimmed with a black anodized ring on the exterior.

1407-002
GLASS TINT FRONT DOOR

The windows located in the left and right front doors shall include a dark gray automotive tint which shall allow forty-five percent (45%) light transmittance. The dark tint shall aid in cab cooling and help protect passengers from radiant solar energy.

1419-008

GLASS REAR DOOR RH

The rear right hand side crew door shall include a window which is 27.00 inches in width X 26.00 inches in height. The window shall be a powered type and shall be controlled by a switch on the door panel ledge and on the driver's control panel.

1430-002

GLASS TINT REAR DOOR RIGHT HAND

The window located in the right hand side rear window shall include a dark gray automotive tint which shall allow forty-five percent (45%) light transmittance. The dark tint shall aid in cab cooling and help protect passengers from radiant solar energy.

1412-008

GLASS REAR DOOR LH

The rear left hand side crew door shall include a window which is 27.00 inches in width X 26.00 inches in height. The window shall be a powered type and shall be controlled by a switch on the door panel ledge and on the driver's control panel.

1431-002

GLASS TINT REAR DOOR LEFT HAND

The window located in the left hand side rear door shall include a dark gray automotive tint which shall allow forty-five percent (45%) light transmittance. The dark tint shall aid in cab cooling and help protect passengers from radiant solar energy.

1410-003

GLASS SIDE MID RH

The cab shall include a window on the right side behind the front and ahead of the crew door which shall measure 16.00 inches wide X 26.00 inches high. This window shall be fixed within this space and shall be rectangular in shape. The window shall be mounted using self locking window rubber. The glass utilized for this window shall include a green automotive tint unless otherwise noted.

1432-002

GLASS TINT SIDE MID RIGHT HAND

The window located on the right hand side of the cab between the front and rear doors shall include a dark gray automotive tint which shall allow forty-five percent (45%) light transmittance. The dark tint shall aid in cab cooling and help protect passengers from radiant solar energy.

1409-003

GLASS SIDE MID LH

The cab shall include a window on the left side behind the front door and ahead of the crew door and above the wheel well which shall measure 16.00 inches wide X 26.00 inches high. This window shall be fixed within this space and shall be rectangular in shape. The window shall be mounted using self locking window rubber. The glass utilized for this window shall include a green automotive tint unless otherwise noted.

1433-002

GLASS TINT SIDE MID LEFT HAND

The window located on the left hand side of the cab between the front and rear doors shall include a dark gray automotive tint which shall allow forty-five percent (45%) light transmittance. The dark tint shall aid in cab cooling and help protect passengers from radiant solar energy.

1614-202

CLIMATE CONTROL

A ceiling mounted combination defroster and cabin heating and air conditioning system shall be located above the engine tunnel area. The system covers and plenums shall be of severe duty design made of aluminum which shall be coated with a customer specified interior paint. The design of the system's covers shall provide quick access to washable air intake filters as well as easy access to other serviceable items.

The air delivery plenums provide targeted airflow directly to the vehicle occupants. Six (6) adjustable louvers will provide comfort for the front seat occupants and ten (10) adjustable louvers will provide comfort for the rear crew occupants.

The system shall be capable of producing up to 12 FPM of air velocity at all occupant seating positions. Separate front and rear blower motors shall be of brushless design and shall be controlled independently. It shall be capable of reducing the interior cabin air temperature from 122° F (+/- 3° F) to 80° F in thirty minutes with 50% relative humidity and full solar load as described in SAE J2646.

The system shall also provide heater pull up performance which meets or exceeds the performance requirements of SAE J1612 as well as defrost performance that meets or exceeds the performance requirements of SAE J381.

A gravity drain system shall be provided that is capable of evacuating condensate from the vehicle while on a slope of up to a 13% grade in any direction.

The air conditioning system plumbing shall be a mixture of custom bent zinc coated steel fittings and

Aeroquip flexible hose with Aeroquip EZ-Clip fittings.

The overhead heater/defroster plumbing shall include an electronic flow control valve that re-directs hot coolant away from the evaporator, via a bypass loop, as the temperature control is moved toward the cold position.

Any component which needs to be accessed to perform system troubleshooting shall be accessible by one person using basic hand tools. Regularly serviced items shall be replaceable by one person using basic hand tools.

**The chassis manufacturer recommends that the overall climate system performance be based off third-party testing in accordance with the Society of Automotive Engineering standards as a complete system.

Individual component level BTU ratings is not an accurate indicator of the performance capability of the completed system. System individual component BTU ratings:

- ▢ Air conditioning evaporator total BTU/HR: 82,000
- ▢ Air conditioning condenser total BTU/HR: 59,000
- ▢ Heater coil total BTU/HR: 98,000

Performance data specified is based on testing performed by an independent third-party test facility using a medium four-door 10" raised roof cab equipped with an ISL engine.

1632-002

CLIMATE CONTROL DRAIN

The climate control system shall include a gravity drain for water management. The gravity drain shall remove condensation from the air conditioning system without additional mechanical assistance.

1617-201

CLIMATE CONTROL ACTIVATION

The heating, defrosting and air conditioning controls shall be in the center dash center switch panel, in a position which is easily accessible to the driver. The climate control shall be activated by a rotary switch.

1620-019

HVAC OVERHEAD COVER PAINT

The overhead HVAC cover shall be painted with a multi-tone onyx black texture finish.

1603-002

A/C CONDENSER LOCATION

A roof mounted A/C condenser shall be installed on the left side of the cab, mid-roof.

1601-013

A/C COMPRESSOR

The air-conditioning compressor shall be a belt driven, engine mounted compressor. The compressor shall be compatible with R134-a refrigerant.

**The chassis manufacturer recommends that the overall climate system performance be based off third-party testing in accordance with the Society of Automotive Engineering standards as a complete system.

Individual component level ratings are not an accurate indicator of the performance capability of the completed system.

Refrigerant Compressor displacement: 19.1 cubic inches per revolution.

1530-104

UNDER CAB INSULATION

The underside of the cab tunnel surrounding the engine shall be lined with multi-layer insulation, engineered for application inside diesel engine compartments.

The insulation shall act as a noise barrier, absorbing noise thus keeping the decibel level in the cab well within NFPA recommendations. As an additional benefit, the insulation shall assist in sustaining the desired temperature within the cab interior.

The engine tunnel insulation shall measure approximately 0.30 inch thick including a multi-layer foil faced glass cloth and polyester fiber layer. The foil surface acts as protection against heat, moisture and other contaminants. The insulation shall meet or exceed FMVSS 302 flammability test.

The cab floor insulation shall measure 0.56 inch thick including a 1.0#/sf PVC barrier and a moisture and heat reflective foil facing, reinforced with fiberglass strands. The foil surface acts as protection against moisture and other contaminants. The insulation shall meet or exceed FMVSS 302 flammability test.

The insulation shall be cut precisely to fit each section and sealed for additional heat and sound deflection. The insulation shall be held in place by acrylic pressure sensitive adhesive. In addition, the insulation on the underside of the cab floor shall have aluminum pins with hard hat, hold in place fastening heads and an expanded metal overlay to assist in retaining the insulation tight against the cab. The insulation inside the tunnel shall have a removable aluminum overlay installed to protect the insulation and assist in retaining the insulation tight against the engine tunnel surfaces.

The cab floor insulation shall cover the driver and officer floor areas as well as all crew floor areas and compartment floor areas if applicable.

1327-015

INTERIOR TRIM FLOOR

The floor of the cab shall be covered with a multi-layer mat consisting of 0.25 inch thick sound absorbing closed cell foam with a 0.06 inch thick non-slip vinyl surface with a pebble grain finish. The covering shall be held in place by a pressure sensitive adhesive and embossed treadplate trim that shall wrap 2" horizontally and vertically. All exposed seams shall be sealed

with silicone caulk matching the color of the floor mat to reduce the chance of moisture and debris retention.

1302-001
INTERIOR TRIM

The cab interior shall include trim on the front ceiling, rear crew ceiling, and the cab walls. It shall be easily removable to assist in maintenance. The trim shall be constructed of insulated vinyl over a hard board backing.

1368-003
REAR WALL INTERIOR TRIM

The rear wall of the cab shall be trimmed with aluminum sheet metal coated with a customer specified interior paint or protective coating.

1306-006
HEADER TRIM

The cab interior shall feature header trim over the driver and officer dash constructed of 5052-H32 Marine Grade, 0.13 inch thick aluminum.

1305-015
TRIM CENTER DASH

The main center dash area shall be constructed of 5052-H32 Marine Grade, 0.13 inch thick aluminum plate. There shall be four (4) holes located on the top of the dash near each outer edge of the electrical access cover for ventilation. The center dash electrical access cover shall include a gas cylinder stay which shall hold the cover open during maintenance.

1339-102
TRIM LH DASH

The left hand dash shall be constructed of 5052-H32 Marine Grade, 0.13 inch thick aluminum plate for a perfect fit around the instrument panel. For increased occupant protection the extreme duty left hand dash utilizes patent pending break away technology to reduce rigidity in the event of a frontal crash. The left hand dash shall offer lower vertical surface area to the left and right of the steering column to accommodate control panels.

1321-030
TRIM RH DASH

The right hand dash shall be constructed of 5052-H32 Marine Grade, 0.13 of an inch thick aluminum plate and shall include a glove compartment with a hinged door and a Mobile Data Terminal (MDT) provision. The glove compartment size will measure 14.00 inches wide

X 4.50 inches high X 5.88 inches deep. The MDT provision shall be provided above the glove compartment.

1307-002

ENGINE TUNNEL TRIM

The cab engine tunnel shall be covered with a multi-layer mat consisting of 0.25 inch closed cell foam with a 0.06 inch thick non-slip vinyl surface with a pebble grain finish. The mat shall be held in place by pressure sensitive adhesive. The engine tunnel mat shall be trimmed with anodized aluminum stair nosing trim for an aesthetically pleasing appearance.

5040-204

POWER POINT DASH MOUNT

The cab shall include two (2) 12 volt cigarette lighter type receptacles in the switch panel to provide a power source for 12 volt electrical equipment. The cab shall also include two (2) Blue Sea dual universal serial bus (USB) charging receptacles in the cab dash switch panel to provide a power source for USB chargeable electrical equipment. The USB ports shall be capable of a 5 Volt-4.8 amp total output. The receptacles shall be wired battery direct.

1303-039

STEP TRIM

Each cab entry door shall include a three step entry. The first step closest to the ground shall be constructed of SAE 304 stainless steel with embossed perforations and diamond shaped cutout. The perforations and cutouts shall allow water and other debris to flow through rather than becoming trapped within the stepping surface. The step shall feature a splash guard to reduce water and debris from splashing in to the step. The splash guard shall have drainage holes beneath the back of the step to allow debris and water to flow through rather than becoming trapped within the stepping surface. The stainless steel material shall have a number 8 mirror finish. The lower step shall be mounted to a frame which is integral with the construction of the cab for rigidity and strength. The middle step shall be integral with the cab construction and shall be trimmed in 0.08 inch thick 3003-H22 embossed aluminum tread plate.

1336-002

STEP TRIM KICKPLATE

The cab steps shall include a kick plate in the rise of each step. The risers shall be trimmed in 3003-H22 bright aluminum tread-plate which is 0.07 inch thick.

1379-003

UNDER CAB ACCESS DOOR

The cab shall include an aluminum access door in the left crew step riser painted to match the cab interior paint with a push and turn latch. The under cab access door shall provide access to the diesel exhaust fluid fill.

1102-013

INTERIOR DOOR TRIM

The interior trim on the doors of the cab shall consist of an aluminum panel constructed of Marine Grade 5052-H32 0.13 of an inch thick aluminum plate. The door panels shall include a painted finish.

1105-008 CAB DOOR TRIM REFLECTIVE

In accordance with the current standards of NFPA, the body builder shall provide 96.00 square inches of reflective material on the interior of each cab door.

1308-001

INTERIOR GRAB HANDLE "A" PILLAR

There shall be two (2) rubber covered 11.00 inch grab handles installed inside the cab, one on each "A" post at the left and right door openings. The left handle shall be located 7.88 inches above the bottom of the door window opening and the right handle shall be located 2.88 inches above the bottom of the door window opening. The handles shall assist personnel in entering and exiting the cab.

1332-029

INTERIOR GRAB HANDLE FRONT DOOR

Each front door shall include one (1) ergonomically contoured 9.00 inch cast aluminum horizontal grab handle which shall be located at the upper-most center of the door panel, and one (1) 9.00 inch vertical grab handle which shall be located outboard of the paddle latch at the center of the door panel. Each handle shall feature a DA sand finish and assist personnel entering and exiting the cab.

1345-008

INTERIOR GRAB HANDLE REAR DOOR

A DA sanded cast aluminum assist handle shall be provided on the inside of each rear crew door. A

30.00 inch long handle shall extend horizontally the width of the window just above the window sill. The handle shall assist personnel in exiting and entering the cab.

1301-003

INTERIOR SOFT TRIM COLOR

The cab interior soft trim surfaces shall be gray in color.

1337-001

INTERIOR TRIM SUNVISOR

The header shall include two (2) sun visors, one each side forward of the driver and officer seating positions above the windshield. Each sun visor shall be constructed of Masonite and covered with padded vinyl trim.

1304-001

INTERIOR FLOOR MAT COLOR

The cab interior floor mat shall be gray in color.

1335-018

CAB PAINT INTERIOR

The visible interior cab structure surfaces shall be painted with a multi-tone onyx black texture finish.

1371-013

HEADER TRIM INTERIOR PAINTThe metal surfaces in the header area shall feature a medium gray spray on bedliner coating.

1370-023

TRIM CENTER DASH INTERIOR PAINT

The entire center dash shall be coated with multi-tone onyx black texture finish. Any accessory pods attached to the dash shall also be painted this color.

1378-022

TRIM LEFT HAND DASH INTERIOR PAINT

The left hand dash shall be painted with a multi-tone onyx black texture finish.

1373-022

TRIM RIGHT HAND DASH INTERIOR PAINT

The right hand dash shall be painted with multi-tone onyx black texture finish.

1344-009

DASH PANEL GROUP

The main center dash area shall include three (3) aluminum removable panels located one (1) to the right of the driver position, one (1) in the center of the dash and one (1) to the left of the officer position. The panels shall be coated with a black texture finish. The center panel shall be within comfortable reach of both the driver and officer.

1312-001

SWITCHES CENTER PANEL

The center dash panel shall include no rocker switches or legends.

1313-023

SWITCHES LEFT PANEL

The left dash panel shall include five (5) switches. There shall be three (3) across the top of the panel with two (2) below. Two (2) of the top row of switches shall be rocker type and the left one (1) shall be the windshield wiper/washer control switch. The lower switches shall be a rocker type switch.

A rocker switch with a blank legend installed directly above shall be provided for any position not designated by a specific option. The non-designated switches shall be two-position, black switches with a green indicator light. Each blank switch legend can be custom engraved by the body manufacturer. All switch legends shall have backlighting provided.

1314-012

SWITCHES RIGHT PANEL

The right dash panel shall six (6) rocker switch positions in a three (3) over three (3) switch configuration.

A rocker switch with a blank legend installed directly above shall be provided for any position without a switch and legend designated by a specific option. The non-specified switches shall be two-position, black switches with a green indicator light. Each blank switch legend can be custom engraved by the body manufacturer. All switch legends shall have backlighting provided.

1225-007

SEAT BELT WARNING

A Weldon seat belt warning system, integrated with the Vehicle Data Recorder system, shall be installed for each seat within the cab. The system shall provide a visual warning indicator in the vehicle display and control screen(s).

The warning system shall activate when any seat is occupied with a minimum of 60 pounds, the corresponding seat belt remains unfastened, and the park brake is released. The warning system shall also activate when any seat is occupied, the corresponding seat belt was fastened in an incorrect sequence, and the park brake is released. Once activated, the visual indicators and applicable audible alarm shall remain active until all occupied seats have the seat belts fastened.

1237-005

SEAT MATERIAL

The Bostrom Firefighter seats shall include a covering of extra high strength, wear resistant fabric made of durable low seam Durawear Plus™ ballistic polyester. A PVC coating shall be bonded to the back side of the material to help protect the seats from UV rays and from being saturated or contaminated by fluids. Durawear Plus™ meets or exceeds specification of the common trade name Imperial 1800. The material meets FMVSS 302 flammability requirements.

If applicable, Theatre style seats located in the cab shall be high strength, wear resistant fabric made of durable ballistic polyester. A PVC coating shall be bonded to the back side of the material to help protect the seats from UV rays and from being saturated or contaminated by fluids. Common trade names for this material are Imperial 1200 and Durawear.

1243-001

SEAT COLOR

All seats supplied with the chassis shall be gray in color. All seats shall include red seat belts.

1249-001

SEAT BACK LOGO

The seat back shall include the "Spartan" logo. The logo shall be centered on the standard headrest of the seat back and on the left side of a split headrest.

1201-033

SEAT DRIVER

The driver's seat shall be an H.O. Bostrom 500 Series Firefighter Sierra model seat. The seat shall feature eight-way electric positioning. The eight positions shall include up and down, fore and aft with 8.00 inches of travel, back angle adjustment and seat rake adjustment. The seat shall feature integral springs to isolate shock.

The seat shall feature an all belts to seat (ABTS) style of safety restraint. The ABTS feature shall include a three-point shoulder harness with the lap belt, automatic retractor and buckle as an integral part of the seat assembly. The ABTS feature shall also include the RiteHite™ shoulder adjustment feature to provide enhanced comfort and safety by allowing customized seat belt fit.

The minimum vertical dimension from the seat H-point to the ceiling for this belted seating position shall be 35.00 inches measured with the seat height adjusted to the lowest position of travel.

This model of seat shall have successfully completed the static load tests set forth by FMVSS 207, 209, and 210 in effect at the time of manufacture. This testing shall include a simultaneous forward load of 3000 pounds each on the lap and shoulder belts and twenty (20) times the weight through the center of gravity.

The materials used in construction of the seat shall also have successfully completed testing with regard to the flammability of materials used in the occupant compartments of motor vehicles as outlined in FMVSS 302, of which dictates the allowable burning rate of materials in the occupant compartments of motor vehicles.

1213-025

SEAT BACK DRIVER

The driver's seat shall include a standard seat back incorporating the all belts to seat feature (ABTS). The seat back shall feature a contoured head rest.

1219-001

SEAT MOUNTING DRIVER

The driver's seat shall be installed in an ergonomic position in relation to the cab dash.

8102-200

OCCUPANT PROTECTION DRIVER

The driver's position shall be equipped with the IMMI 4Front and RollTek™ Systems which shall secure belted occupants and increase the survivable space within the cab. The 4Front and RollTek™ Systems shall selectively deploy integrated systems to protect against injuries in qualifying frontal impact, and rollover events.

The Driver's seating area protection shall include:

- ▢ Drivers airbag DAB - inflates a steering wheel airbag to protect the head and neck of the driver.
- ▢ Driver's knee airbag DKAB - inflating knee bolster airbags to protect the knees.
- ▢ Integrated roll sensor IRS - detects an imminent rollover, activates protective devices and records crash events.
- ▢ Integrated belt pretension IBP - device for mechanical and/or electrical seats tightens the seat belt, securing driver in seat and positions driver for contact with seat integrated head cushion side roll airbag.

Inflatable head cushion seat integrated side roll airbag SRA - protects driver's head/neck and shields driver from dangerous surfaces.

1202-037

SEAT OFFICER

The officer's seat shall be a H.O. Bostrom 500 Series Sierra seat model. The seat shall feature a tapered and padded seat, and cushion. The seat shall be mounted in a fixed position.

The seat shall feature an all belts to seat (ABTS) style of safety restraint. The ABTS feature shall include a three-point shoulder harness with the lap belt and automatic retractor as an integral part of the seat assembly. The buckle portion of the seat belt shall extend from the seat base towards the driver position within easy reach of the occupant. The ABTS feature shall also include the RiteHite™ shoulder adjustment feature to provide enhanced comfort and safety by allowing customized seat belt fit.

The minimum vertical dimension from the seat H-point to the ceiling for this belted seating position shall be 35.00 inches.

This model of seat shall have successfully completed the static load tests by FMVSS 207/210. This testing shall include a simultaneous forward load of 3000 pounds each on the lap and shoulder belts and twenty (20) times the weight through the center of gravity. This model of seat installed in the cab model, as specified, shall have successfully completed the dynamic sled testing using FMVSS 208 as a guide with the following accommodations. In order to reflect the larger size outfitted firefighters, the test dummy used shall be a 95th percentile hybrid III male weighing 225 pounds rather than the 50th percentile male dummy weighing 165 pounds as referenced in FMVSS 208. The model of seats shall

also have successfully completed the flammability of materials used in the occupant compartments of motor vehicles as outlined in FMVSS 302, of which decides the burning rate of materials in the occupant compartments of motor vehicles.

1214-034

SEAT BACK OFFICER

The officer's seat back shall include an IMMI brand SmartDock® Gen 2 hands-free self contained breathing apparatus (SCBA) holder. The hands-free holder shall meet NFPA 1901-03 9G dynamic requirements for cylinder restraint systems for use in crew compartments of emergency response vehicles. The bracket shall accommodate and secure most types of self-contained breathing apparatus cylinders.

The hands-free holder shall consist of a back plate, bottom cradle, non-marring top claws, and claw height adjustment knob. The height adjustment knob shall allow for easy adjustment of the claws to the SCBA. The hands-free holder's claws shall lock from inertial forces to prevent the SCBA from becoming a projectile in the event of a crash to meet the NFPA 1901-03 standard for SCBA retention. The SCBA holder shall offer single-motion insertion into the claws and hands-free release when the SCBA fitted seat occupant rises.

1220-003

SEAT MOUNTING OFFICER

The officer's seat shall offer a special mounting position which is 2.00 inches rearward of the standard location offering increased leg room for the occupant.

8103-200

OCCUPANT PROTECTION OFFICER

The officer's position shall be equipped with the IMMI 4Front and RollTek™ Systems which shall secure belted occupants and increase the survivable space within the cab. The 4Front and RollTek™ Systems shall selectively deploy integrated systems to protect against injuries in qualifying frontal impact, and rollover events.

The Officer's seating area protection shall include:

- Officer's knee airbag OKAB - inflating knee bolster airbags to protect the knees.
- Integrated roll sensor IRS - detects an imminent rollover, activates protective devices and records crash events.
- Integrated belt pretension IBP - device for mechanical and/or electrical seats tightens the seat belt, securing officer in seat and positioning officer for contact with seat integrated head cushion side roll airbag.
- Inflatable head cushion seat integrated side roll airbag SRA - protects officer's head/neck and shields officer from dangerous surfaces.

1297-002

POWER SEAT WIRING

The power seat or seats installed in the cab shall be wired directly to battery power.

1273-001

SEAT BELT ORIENTATION CREW

The crew position seat belts shall follow the standard orientation which extends from the outboard shoulder extending to the inboard hip.

1263-001

SEAT REAR FACING OUTER LOCATION

The crew area shall include two (2) rear facing crew seats, which include one (1) located directly behind the left side front seat and one (1) located directly behind the right side front seat.

The primary position designation per NFPA 1900 2024 edition, shall only declare the positioning in the cab offers a minimum width of 27.60 inches of shoulder clearance without overlap of any other primary seating position and a minimum of 10.80 inches each side of seat center line. Clear width may be offset from center of seat cushion by up to 3.00 inches. It shall also offer a minimum of 22.00 inches of shoulder width clearance without any overlap of any position.

1203-020

SEAT CREW REAR FACING OUTER

The crew area shall include a seat in the rear facing outboard position which shall be a H.O. Bostrom

500 Series Firefighter model seat. The seat shall feature a tapered and padded seat, and cushion. The seat shall be mounted in a fixed position.

The seat shall feature an all belts to seat (ABTS) style of safety restraint. The ABTS feature shall include a three-point shoulder harness with the lap belt and automatic retractor as an integral part of the seat assembly. The buckle portion of the seat belt shall extend from the seat base towards the driver position within easy reach of the occupant. The ABTS feature shall also include the RiteHite™ shoulder adjustment feature to provide enhanced comfort and safety by allowing customized seat belt fit.

The minimum vertical dimension from the seat H-point to the ceiling for this belted seating position shall be 35.00 inches.

This model of seat shall have successfully completed the static load tests by FMVSS 207/210. This testing shall include a simultaneous forward load of 3000 pounds each on the lap and

shoulder belts and twenty (20) times the weight through the center of gravity. This model of seat installed in the cab model, as specified, shall have successfully completed the dynamic sled testing using FMVSS 208 as a guide with the following accommodations. In order to reflect the larger size outfitted firefighters, the test dummy used shall be a 95th percentile hybrid III male weighing 225 pounds rather than the 50th percentile male dummy weighing 165 pounds as referenced in FMVSS 208. The model of seats shall also have successfully completed the flammability of materials used in the occupant compartments of motor vehicles as outlined in FMVSS 302, of which decides the burning rate of materials in the occupant compartments of motor vehicles.

1215-031

SEAT BACK REAR FACING OUTER

The crew area seat backs shall include an IMMI brand SmartDock® Gen 2 hands-free self contained breathing apparatus (SCBA) holder. The hands-free holder shall meet NFPA 1901-03 9G dynamic requirements for cylinder restraint systems for use in crew compartments of emergency response vehicles. The bracket shall accommodate and secure most types of self-contained breathing apparatus cylinders.

The hands-free holder shall consist of a back plate, bottom cradle, non-marring top claws, and claw height adjustment knob. The height adjustment knob shall allow for easy adjustment of the claws to the SCBA. The hands-free holder's claws shall lock from inertial forces to prevent the SCBA from becoming a projectile in the event of a crash to meet the NFPA 1901-03 standard for SCBA retention. The SCBA holder shall offer single-motion insertion into the claws and hands-free release when the SCBA fitted seat occupant rises.

1221-009

SEAT MOUNTING REAR FACING OUTER

The rear facing outer seats shall offer special mounting positions which shall be 2.00 inches towards the rear wall offering additional space between the front seats and the outer rear facing seats.

8104-200

OCCUPANT PROTECTION RFO

The rear facing outer seat position(s) shall be equipped with the RollTek™ System which shall secure belted occupants and increase the survivable space within the cab. The RollTek™ System shall deploy integrated systems to protect against injuries in rollover events.

The rear facing outer seat position(s) protection shall include:

- Integrated roll sensor IRS - detects an imminent rollover, activates protective devices and records crash events.

- Integrated belt pretension IBP - device for flip-up (non-theatre) and fixed mechanical seats tightens the seat belt, securing occupant in seat and positioning occupant for contact with seat integrated head cushion side roll airbag.

Inflatable head cushion seat integrated side roll airbag SRA - protects occupant's head/neck and shields occupant from dangerous surfaces.

1266-001

SEAT FORWARD FACING CENTER LOCATION

The crew area shall include two (2) forward facing center crew seats with both located at the center of the rear wall.

1206-031

SEAT CREW FORWARD FACING CENTER

The forward facing center seat shall be a H.O. Bostrom 500 Series Firefighter model seat. The seat shall feature a tapered and padded seat, and cushion. The seat shall be mounted in a fixed position. The seat and cushion shall be hinged and compact in design for additional room. The seat shall include a "Fold and Hold" feature so that the cushion shall remain in the seated position and simply touched to flip up.

The seat shall feature an all belts to seat (ABTS) style of safety restraint. The ABTS feature shall include a three-point shoulder harness with the lap belt and automatic retractor as an integral part of the seat assembly. The buckle portion of the seat belt shall extend from the seat base towards the driver position within easy reach of the occupant. The ABTS feature shall also include the RiteHite™ shoulder adjustment feature to provide enhanced comfort and safety by allowing customized seat belt fit.

The minimum vertical dimension from the seat H-point to the ceiling for each belted seating position shall be 35.00 inches.

This model of seat shall have successfully completed the static load tests by FMVSS 207/210. This testing shall include a simultaneous forward load of 3000 pounds each on the lap and shoulder belts and twenty (20) times the weight through the center of gravity. This model of seat installed in the cab model, as specified, shall have successfully completed the dynamic sled testing using FMVSS 208 as a guide with the following accommodations. In order to reflect the larger size outfitted firefighters, the test dummy used shall be a 95th percentile hybrid III male weighing 225 pounds rather than the 50th percentile male dummy weighing 165 pounds as referenced in FMVSS 208. The model of seats shall also have successfully completed the flammability of materials used in the occupant compartments of motor vehicles as outlined in FMVSS 302, of which decides the burning rate of materials in the occupant compartments of motor vehicles.

1218-035

SEAT BACK FORWARD FACING CENTER

The crew area seat backs shall include an IMMI brand SmartDock® Gen 2 hands-free self contained breathing apparatus (SCBA) holder. The hands-free holder shall meet NFPA 1901-03 9G dynamic requirements for cylinder restraint systems for use in crew compartments of emergency response vehicles. The bracket shall accommodate and secure most types of self-contained breathing apparatus cylinders.

The hands-free holder shall consist of a back plate, bottom cradle, non-marring top claws, and claw height adjustment knob. The height adjustment knob shall allow for easy adjustment of the claws to the SCBA. The hands-free holder's claws shall lock from inertial forces to prevent the SCBA from becoming a projectile in the event of a crash to meet the NFPA 1901-03 standard for SCBA retention. The SCBA holder shall offer single-motion insertion into the claws and hands-free release when the SCBA fitted seat occupant rises.

8107-101

OCCUPANT PROTECTION FFC

The forward facing center seat positions shall be equipped with the RollTek™ rollover occupant protection system which shall secure occupants, increase the survivable space within the cab and protect against head/neck injuries in the event of a rollover accident.

The system shall function using a microprocessor-controlled, solid-state sensing device which, when the system detects a side roll shall provide instantaneous occupant protection (less than 0.3 seconds from trigger to total deployment) by automatically initiating the following sequence:

1. The seat belt shall tighten around the

occupant. System Components Shall Include:

Integrated Roll Sensor IRS - detects an imminent rollover, activates protective devices and records crash events.

Integrated Belt Pretension IBP with flip-up (non theatre) and fixed mechanical seats - tightens the seat belt around occupant, securing occupant in seat.

Integrated Gas Pretension IGP with flip-up theatre style seats - tightens the seat belt around occupant, securing occupant in seat.

1269-101

SEAT FRAME FORWARD FACING

The forward facing center seating positions shall include an enclosed seat frame located and installed on the rear wall. The seat frame shall measure 42.38 inches wide X 12.38 inches high X 22.00 inches deep. The seat frame shall be constructed of Marine Grade 5052-H32 0.19 inch thick aluminum plate. The seat box shall be painted with the same color as the remaining interior.

1281-101

SEAT FRAME FORWARD FACING STORAGE ACCESS

There shall be two (2) access points to the seat frame storage area, one (1) on each side of the seat frame. Each access point shall be covered by a hinged door which measures 15.00 inches in width X 10.63 inches in height with an opening that measures 13.75 inches wide X 10.00 inches high.

1224-005

SEAT MOUNTING FORWARD FACING CENTER

The forward facing center seats shall offer a special mounting. The seats shall be installed as far apart as possible offering the most available room for each occupant.

1311-101

CAB FRONT UNDERSEAT STORAGE ACCESS

The left and right under seat storage areas shall have a solid aluminum hinged door with non-locking latch.

1355-016

SEAT COMPARTMENT DOOR FINISH

All underseat storage compartment access doors shall feature a medium gray spray on bedliner coating.

1511-203

WINDSHIELD WIPER SYSTEM

The cab shall include a triple arm linkage wiper system which shall clear the windshield of water, ice and debris. There shall be two (2) windshield wipers; each shall be affixed to a radial arm. The wiper motor shall be activated by an intermittent wiper control located within easy reach of the driver's position. The windshield wipers shall be interlocked with the park brake allowing activation only when the park brake is released.

There shall be virtual button on the vehicle display and control screen to override the park brake deactivation. This will reset when the park brake is cycled.

1534-

002

ELECTRONIC WINDSHIELD FLUID LEVEL INDICATOR

The windshield washer fluid level shall be monitored electronically. When the washer fluid level becomes low the yellow "Check Message Center" indicator light on the instrument panel shall illuminate and the message center in the dual air pressure gauge shall display a "Check Washer Fluid Level" message.

1103-001

CAB DOOR HARDWARE

The cab entry doors shall be equipped with exterior pull handles, suitable for use while wearing firefighter gloves. The handles shall be made of aluminum with a chrome plated finish.

The interior exit door handles shall be flush paddle type with a black finish, which are incorporated into the upper door panel.

All cab entry doors shall include locks which are keyed alike. The door locks shall be designed to prevent accidental lockout.

1111-004 DOOR LOCKS

The cab entry doors shall include a Controller Area Network (CAN) based electronic door lock system which shall include two (2) external keypads, one (1) located on the left side next to the front grab handle and one (1) on the right side next to the front grab handle. There shall be one (1) red rocker switch provided on the inside of each front cab entry door to actuate the cab door locks. Each door lock may also be manually actuated from the inside of the cab by means of a red knob located on the paddle handle of the respective door. The electronic door lock system shall include four (4) key fobs for actuation with buttons for cab entry door locks and for compartment door locks.

When the doors are unlocked using the external keypad or the key fobs the interior dome lights shall illuminate and remain on for a period of twenty (20) seconds. The interior dome safety feature shall require the interior lighting power to be battery direct.

Wiring shall also be provided for up to four (4) exterior cab compartments and up to four (4) body compartments.

1112-004 POWER DOOR LOCK COMPARTMENT ACTIVATION

The power door lock feature shall include activation for exterior compartment door locks through the key fob and keypads.

1503-209 GRAB HANDLES

The cab shall include one (1) 18.00 inch three-piece knurled aluminum anti-slip exterior grab handle behind each cab door. The Hansen Anti-Slip Rails shall be mounted in bright anodized aluminum 4000 Series II stanchions, complete with weep holes to prevent the buildup of moisture.

The grab rails shall include red reflective tape.

1503D-003 LIGHTED GRAB HANDLES

The grab rails shall include a 12 volt, 17.00 inch long clear LED light to provide an increased margin of safety for night time cab entry and egress.

1504-014

REARVIEW MIRRORS

Retrac Aerodynamic West Coast style dual vision mirror heads model 613305 shall be provided and installed on each of the front cab doors.

The mirrors shall be mounted via 1.00 inch diameter tubular stainless steel arms to provide a rigid mounting to reduce mirror vibration.

The mirrors shall measure 8.00 inches wide X 19.00 inches high and shall include an integral convex mirrors installed in the mirror head below the flat glass to provide a wider field of vision. The flat and convex mirrors shall be motorized with remote horizontal and vertical adjustment. The control switches shall be mounted within easy reach of the driver. The flat and convex mirrors shall be heated for defrosting in severe cold weather conditions.

The mirrors shall be constructed of a vacuum formed chrome plated ABS plastic housing that is corrosion resistant and shall include the finest quality non-glare glass.

1529-003

REARVIEW MIRROR HEAT SWITCH

The heat for the rearview mirrors shall be controlled through a virtual button on the vehicle display and control screen.

1525-008

EXTERIOR TRIM REAR CORNER

There shall be an overlay of 3003-H22 aluminum tread plate which shall be 0.07 inches thick on the outside corners at the back of the cab. The overlay shall wrap 1.00 inches forward on the sides of the cab and 12.00 inches inboard on the rear wall.

1513-029

CAB FENDER

Wheel well liners shall be integrated into cab design and include a bed liner undercoat to limit road splash and enable easier cleaning. Each outer fenderette shall be 5.00 inches wide made of SAE 304 polished stainless steel.

1514-002

MUD FLAPS FRONT

The front wheel wells shall have mud flaps installed on them.

1526-026

CAB EXTERIOR FRONT & SIDE EMBLEMS

The cab shall include three (3) Spartan emblems. There shall be one (1) installed on the front air intake grille and one (1) emblem on each of the cab sides.

1502-050

CAB EXTERIOR MODEL NAMEPLATE

The cab shall include "Metro Star" nameplates on the front driver and officer side doors.

5109-015 IGNITION

A master battery system with a keyless start ignition system shall be provided. There shall be a three- position rocker switch with off, battery, and ignition positions as well as a stainless-steel etched engine start push-button. The engine start button shall include an illuminated LED halo ring. Both switches shall be mounted to the left of the steering wheel on the dash.

The engine start switch shall only operate when the master battery and ignition switch is in the "ignition" position.

5101-021 BATTERY

The single start electrical system shall include six (6) Harris BCI 31 925 CCA batteries with a 210 minute reserve capacity and 4/0 welding type dual path starter cables per SAE J541.

The batteries shall be held in place by non-conducting phenolic resin hold down boards.

5106-003 BATTERY TRAY

The batteries shall be installed within two (2) steel battery trays located on the left side and right side of the chassis, securely bolted to the frame rails. The battery trays shall be coated with the same material as the frame.

The battery trays shall include drain holes in the bottom for sufficient drainage of water. A durable, non- conducting, interlocking mat made by Dri-Dek shall be installed in the bottom of the trays to allow for air flow and help prevent moisture build up.

5107-007 BATTERY BOX COVER

Each battery box shall include a steel cover which protects the top of the batteries. Each cover shall include flush latches which shall keep the cover secure as well as a black powder coated handle for convenience when opening.

5102-001 BATTERY CABLE

The starting system shall include cables which shall be protected by 275 degree F. minimum high temperature flame retardant loom, sealed at the ends with heat shrink and sealant.

5108-010
BATTERY JUMPER STUD

The starting system shall include battery jumper studs. These studs shall be located in the forward most portion of the driver's side lower step, 8.00 inches apart. The studs shall allow the vehicle to be jump started, charged, or the cab to be raised in an emergency in the event of battery failure.

5104-002
ALTERNATOR

The charging system shall include a 320 amp Leece-Neville 12 volt alternator. The alternator shall include a self-exciting integral regulator.

5105-001
STARTER MOTOR

The single start electrical system shall include a Delco brand starter motor.

5202-400
BATTERY CONDITIONER

A Kussmaul Auto Charge Chief 4012 battery conditioner shall be supplied. The battery conditioner shall provide a circuit protected 40-amp output for the chassis batteries and a 20-amp output circuit for accessory loads. The conditioner shall also include a battery temperature sensor.

5218-002
BATTERY CONDITIONER LOCATION

The battery conditioner shall be mounted in the cab in the left-hand rear facing outer seating position.

5203-201
BATTERY CONDITIONER DISPLAY

A Kussmaul Chief Remote Control Panel (RCP) battery conditioner display shall be supplied.

5220-010

BATTERY CONDITIONER DISPLAY LOCATION

The battery conditioner display shall be mounted in the left side front step on the vertical area above the intermediate step towards the rear of the step well.

5209-046

ELECTRICAL INLET LOCATION

An electrical inlet shall be installed on the left hand side of cab centered directly over the wheel well.

5204-055

ELECTRICAL INLET

A Kussmaul 20 amp super auto-eject electrical receptacle shall be supplied. It shall automatically eject the plug when the starter button is depressed.

A single item or an addition of multiple items must not exceed the rating of the electric inlet that it's connected to.

Amp Draw Reference List: Kussmaul

40 LPC Charger - 5 Amps Kussmaul

Chief 4012 Charger – 5.7 Amps

Kussmaul 80 LPC Charger - 13 Amps

Kussmaul Chief 6012 Charger - 9

Amps Blue Sea P12 7532 - 7.5 Amps

Iota DLS-45/IQ4 - 11 Amps

1000W Engine Heater - 8.33 Amps

1500W Engine Heater - 12.5 Amps

120V Air Compressor - 4.2 Amps

120V Dometic HVAC - 15 Amps

5210-004

ELECTRICAL INLET CONNECTION

The electrical inlet shall be connected to the battery conditioner.

5206-002

ELECTRICAL INLET COLOR

The electrical inlet connection shall include a yellow cover.

5301-106

HEADLIGHTS

The cab front shall include two (2) FireTech rectangular LED headlamps with high/low beam in the same housing and two (2) separate FireTech LED high beam only headlamps mounted in bright chrome bezels.

5337-

001

HEADLIGHT LOCATION

The headlights shall be located on the front fascia of the cab directly below the front warning lights.

5303-036

FRONT TURN SIGNALS

The front fascia shall include two (2) Whelen model M6 4.00 inch X 6.00 inch amber LED with clear lens turn signals which shall be installed in a chrome radius mount housing above and outboard of the front warning and head lamps.

5336-

015

SIDE TURN/MARKER LIGHTS

The sides of the cab shall include two (2) Tecniq S170 LED side marker lights which shall be provided just behind the front cab radius corners. The lights shall be amber with chrome bezels.

5302-022

MARKER AND ICC LIGHTS

In accordance with FMVSS, there shall be five (5) Tecniq S170 LED cab marker lamps designating identification, center and clearance provided. These lights shall be installed on the face of the cab within full view of other vehicles from ground level. The lights shall be amber with chrome bezels.

5350-104

HEADLIGHT AND MARKER LIGHT ACTIVATION

The headlights and marker lights shall be controlled via a virtual button on the Vista display. There shall be a virtual dimmer control on the Vista display to adjust the brightness of the dash lights. The headlamps and markers lamps shall illuminate to 100% brilliance when the ignition switch is in the "On" position. The headlamps shall be equipped with an LED halo parking light around the perimeter of each lamp that shall activate with marker lights "on".

5305-353

INTERIOR OVERHEAD LIGHTS

The cab shall include a Whelen 60CREGCS LED dome lamp located over each door. The dome lamps shall be circular in shape and shall measure approximately 6.00 inches in diameter. The lights shall include push buttons on each lamp to activate both the clear and red portions of the light individually.

5388-003

INTERIOR OVERHEAD LIGHTS ACTIVATION

The clear portion of each lamp shall be activated by opening the respective door and via the multiplex display.

5403-051

LIGHTBAR PROVISION

There shall be two (2) light bars installed on the cab roof. The light bars shall be provided and installed by the chassis manufacturer. The light bar installation shall include mounting and wiring to a control switch on the cab dash.

5450N-006

CAB FRONT LIGHTBAR MODEL

The cab shall be provided with two (2) Whelen model F4NMINI light bars. Each light bar shall be 21.50 inches in length and feature eight (8) customizable pods.

See the light bar layout for specific details.

5426-003

LIGHTBAR SWITCH

The light bar shall be controlled by a virtual button on the vehicle display and control screen. This button shall be clearly labeled for identification.

5317-194

FRONT SCENE LIGHTS

The front of the cab shall include two (2) Whelen Pioneer model PFH1 contour roof mount scene lights installed on the brow of the cab.

Each 75 watt lamp head shall incorporate a 12 volt DC Super-LED flood light installed in a die-cast aluminum housing. Each lamp head shall use a collimator/metalized redux flood reflector assembly with Proclera™ silicone optics and a clear non-optic polycarbonate lens. The lens/reflector assembly shall utilize a liquid injected molded silicone gasket to be resistant to water, moisture, dust, and other environmental conditions. The PFH1 shall be vibration resistant. The Pioneer PC boards shall be conformal coated for additional protection. Each combination flood light lamp head shall draw 13.0 amps in spotlight mode and generate 8,875 lumens total. Each lamp head shall measure 4.25 inches in height X 8.35 inches in width. The lamp heads and brackets shall be powder coated white.

5329-006

FRONT SCENE LIGHT LOCATION

There shall be two (2) scene lights mounted to the front brow of the cab in the outboard position.

5335-022

FRONT SCENE LIGHTS ACTIVATION

The front scene lighting shall be activated by a virtual button on the vehicle display and control screen and a lighted momentary rocker switch on the dash.

5306-103

SIDE SCENE LIGHTS

The cab shall include two (2) Whelen Pioneer model PCPSM1C LED surface mount lights installed one (1) on each side of the cab.

The PCPSM1C configuration shall consist of twelve (12) white Super-LEDs for the spot light with a specialized spot reflector on the bottom, twenty-four (24) white Super-LEDs in the flood light with a clear optic collimator/metalized reflector assembly on the top, and a clear non-optic polycarbonate lens. Each lamp head shall draw 6.0 amps and generate 7,800 lumens. Each lamp head shall measure 6.37 inches in height X 8.97 inches in width. Each lamp head housing shall be chrome plated.

5318-003

SIDE SCENE LIGHT LOCATION

The scene lighting located on the left and right sides of the cab shall be mounted in the upper forward portion of the cab between the front and rear crew doors.

5316-033

SIDE SCENE ACTIVATION

The scene lights shall be activated by two (2) lighted momentary rocker switches located in the switch panel, one (1) for each light, by two (2) virtual buttons on the vehicle display and control screen(s), one (1) for each light, and by opening the respective side cab doors.

5330-035

REAR SCENE LIGHTS

The vehicle shall include multiplex activated rear scene lighting for body builder installed scene lights and body builder installed multiplex output.

5331-009

REAR SCENE LIGHT ACTIVATION

The rear scene lighting shall be activated via a virtual button on the Vista display and control screen.

5308-300

GROUND LIGHTS

Each door shall include a Tecniq T44 LED ground light mounted to the underside of the cab step below each door. The lights shall include a polycarbonate lens, a housing which is vibration welded and LEDs which shall be shock mounted for extended life.

5386-004

GROUND LIGHTS

The ground lighting shall be activated when the parking brake is set, by the opening of the door on the respective cab side, and through a virtual button on the vehicle display and control screen.

5319-003

UNDER BUMPER LIGHTS

There shall be two (2) 4.00 inch round LED NFPA compliant ground lights mounted under the bumper. The lights shall include a polycarbonate lens, a housing which is vibration welded, and LEDs which shall be shock mounted for extended life. The under bumper ground lighting shall be interlocked with the park brake and the marker light activation.

5309-003

LOWER CAB STEP LIGHTS

The middle step located at each door shall include a Tecniq T44 LED light which shall activate with the opening of the respective door. The lights shall include a polycarbonate lens, a housing which is vibration welded and LEDs which shall be shock mounted for extended life.

5382-007

INTERMEDIATE STEP LIGHTS

The intermediate step well area at each door shall include a TecNiq D06 LED light within a chrome housing. The egress step lights shall provide visibility to the step well area for the first step exiting the vehicle. The egress step lights shall activate with entry step lighting.

5312-003

ENGINE COMPARTMENT LIGHT

There shall be a LED NFPA compliant light mounted under the engine tunnel for area work lighting on the engine. The light shall activate automatically when the cab is tilted.

5406-119

DO NOT MOVE APPARATUS LIGHT

The front headliner of the cab shall include a flashing red TecNiq K50 LED light clearly labeled "Do Not Move Apparatus". In addition to the flashing red light, an audible alarm shall be included which shall sound while the light is activated.

The flashing red light shall be located centered left to right for greatest visibility.

The light and alarm shall be interlocked for activation when either a cab door is not firmly closed, or an apparatus compartment door is not closed, and the parking brake is released.

5422-020

MASTER WARNING SWITCH

A master switch shall be included, as a virtual button on the vehicle display and control screen which shall be labeled "E Master" for identification. The button shall feature control over all devices wired through it. Any warning device switches left in the "ON" position when the master switch is activated shall automatically power up.

There shall be an additional virtual button on the vehicle display and control screen to manually override an automatic warning light dimmer clearly labeled "WARNING LIGHT DIMMER". The warning light dimmer will automatically reduce the brightness of the warning lights with the display screen "Night" dimmer setting and with the park brake set. The operator can override the warning light dimmer feature and manually select the warning lights to be at normal brightness using the warning light dimmer virtual button, or "Day" display screen brightness. The lights shall also default to normal brightness when the "E Master" button is activated, and the park brake is released.

5409-002

HEADLIGHT FLASHER

An alternating high beam headlight flashing system shall be installed into the high beam headlight circuit which shall allow the high beams to flash alternately from left to right.

Deliberate operator selection of high beams will override the flashing function until low beams are again selected. Per NFPA, these clear flashing lights will also be disabled "On Scene" when the park brake is applied.

5425-003

HEADLIGHT FLASHER SWITCH

The flashing headlights shall be activated through a virtual button on the Vista display and control screen.

5401-079

INBOARD FRONT WARNING LIGHTS

The cab front fascia shall include two (2) Whelen M6 Super LED front warning lights in the left and right inboard positions. The lights shall feature multiple flash patterns including steady burn. The lights shall be mounted to the front fascia of the cab within a chrome bezel. The warning lights shall be set to emit the "TripleFlash 75" in/out flash pattern.

5413-003

INBOARD FRONT WARNING LIGHTS COLOR

The warning lights mounted on the cab front fascia in the inboard positions shall be red with a clear lens.

5414-057

OUTBOARD FRONT WARNING LIGHTS

The cab front fascia shall include two (2) Whelen M6 Super LED front warning lights in the left and right outboard positions. The lights shall feature multiple flash patterns including steady burn. The lights shall be mounted to the front fascia of the cab within a chrome bezel. The warning lights shall be set to emit the "TripleFlash 75" in/out flash pattern.

5415-003

OUTBOARD FRONT WARNING LIGHTS COLOR

The warning lights mounted on the cab front fascia in the outboard position shall be red with a clear lens.

5432-220

BUMPER FACE WARNING LIGHT

The front bumper face shall include two (2) Whelen M6 series 4.31 inches tall X 6.75 inches wide Super LED® warning lights. The warning lights shall feature multiple flash patterns including steady burn. The lights shall be surface mounted within a chrome bezel. The warning lights shall be set to flash "TripleFlash 75" in/out flash pattern.

5433-004

BUMPER FACE WARNING LIGHT COLOR

The warning lights in the bumper shall be red with clear lenses.

5474-005

BUMPER FACE WARNING LIGHT LOCATION

The front bumper face warning lights shall be located between the frame rails in the right and left side outboard positions.

5423-003

FRONT WARNING SWITCH

The front warning lights shall be controlled through a virtual control on the vehicle display and control screen. This switch shall be clearly labeled for identification.

5404-080

INTERSECTION WARNING LIGHTS

The chassis shall include two (2) Whelen M6 series Super LED intersection warning lights, one (1) each side. The lights shall feature multiple flash patterns including steady burn. The lights shall be set to flash "TripleFlash 75" I/O flash pattern.

5419-003

INTERSECTION WARNING LIGHTS COLOR

The intersection lights shall be red with a clear lens.

5420-007

INTERSECTION WARNING LIGHTS LOCATION

The intersection lights shall be mounted centered front to rear on the flat portion of the side of the bumper tail.

5402-080

SIDE WARNING LIGHTS

The cab sides shall include two (2) Whelen M6 Super LED warning lights, one (1) on each side. The lights shall feature multiple flash patterns including steady burn for solid colors and multiple flash patterns for split colors. The lights shall be mounted to the sides of the cab within a chrome bezel. The light shall be programmed to emit the "TripleFlash 75" in/out flash pattern.

5418-003

SIDE WARNING LIGHTS COLOR

The warning lights located on the side of the cab shall be red with clear lens.

5412-002

SIDE WARNING LIGHTS LOCATION

The warning lights on the side of the cab shall be mounted over the front wheel well directly over the center of the front axle.

5424-003

SIDE AND INTERSECTION WARNING SWITCH

The side warning lights shall be controlled through a virtual button on the vehicle display and control screen. This button shall be clearly labeled for identification.

5469-002

TANK LEVEL LIGHTS

There shall be two (2) FRC MaxVision surface mount water level light strips.

The light strips shall feature four (4) colors of LED lights to indicate the fluid level of a tank. The colors from top to bottom shall be green, blue, amber, and red.

5470-002

TANK LEVEL LIGHTS ACTIVATION

The tank level lights shall be pre-wired and coiled at rear of the cab for connection to the apparatus by the body builder.

5471-003

TANK LEVEL LIGHTS LOCATION

There shall be water level lights mounted on each side of the cab, centered between the rear cab doors and the rear corners of the cab.

5449-034

REAR WARNING LIGHTS

The cab shall include a Whelen TAL65 Traffic Advisor Kit provided by Spartan. The kit shall include the Traffic Advisor with the standard fifteen (15) feet of cable and a Whelen TACTL5 Traffic Advisor control head.

The Whelen TACTL5 Traffic Advisor control head shall be installed and wired in the header above the driver. The control head shall be mounted in the driver's side header inboard of the radio position.

The power to the control head shall be ignition switched and activation dependent upon the state of the controllers switched position upon ignition.

Wiring provisions shall be provided and routed to the rear of the frame for the Whelen traffic advisor which shall be shipped loose for OEM installation.

5407-019

INTERIOR DOOR OPEN WARNING LIGHTS

The interior of each door shall include one (1) 15.87 inch long X 0.73 inch tall amber Weldon LED warning light. The light shall be located on the upper portion of the door frame to be visible when a person is standing in front of the door while entering or exiting the cab. Each light shall activate with a scrolling directional flash pattern which moves from inside to outside when the door is in the open position. This shall serve as a warning to oncoming traffic.

5510-079

SIREN CONTROL HEAD

A Whelen 295HFSC9 electronic siren control head shall be provided. The siren head shall feature a

200-watt output, wail, yelp, manual siren, and hands free operation which shall allow the operator to turn the siren on and off from the horn ring if a horn/siren selector switch option is also selected. The siren shall be installed in the switch panel with a location specific to the customer's needs.

5514-102

STEERING WHEEL HORN BUTTON SELECTOR SWITCH

A virtual button on the Vista display and control screen shall be provided to allow control of the electric horn or the air horn from the steering wheel horn button. The horn button selection shall default to the air horn each time the Vista screen power is cycled off and on.

5526-004

AUDIBLE WARNING LH FOOT SWITCH

A foot switch wired to actuate the mechanical siren(s) shall be supplied for installation in the front section of the cab for driver actuation.

5526D-001

MECHANICAL SIREN FOOT SWITCH LH

The mechanical siren foot switch shall be a Linemaster model 491-S.

5526E-001

MECHANICAL SIREN FOOT SWITCH LH LOCATION

The mechanical siren foot switch shall be located on the left hand side accessible to the driver between the steering column and the door.

5526F-001

MECHANICAL SIREN FOOT SWITCH LH POSITION

The mechanical siren foot switch shall be positioned outboard of any other foot switch, if applicable.

5529-002

AUDIBLE WARNING LH FOOT SWITCH BRACKET

A 30.00 degree angled foot switch bracket, wide enough to accommodate (2) foot switches, shall be installed outboard of the steering column for specified driver accessible foot switch activations.

5512-217

AIR HORN AUXILIARY ACTIVATION

The air horn activation shall be accomplished by a momentary rocker switch on the switch panel.

5513-506

MECHANICAL SIREN BRAKE/AUXILIARY ACTIVATION

The mechanical siren shall be actuated by a momentary rocker switch in the switch panel on the dash. A red momentary siren brake rocker switch shall be provided in the switch panel on the dash. A virtual button for the siren brake shall be provided on the vehicle display and control screen.

5532-001

MECHANICAL SIREN INTERLOCK

The siren shall only be active when master warning switch is on to prevent accidental engagement.

5505-002
BACK-UP ALARM

An ECCO model 575 backup alarm shall be installed at the rear of the chassis with an output level of 107 dB. The alarm shall automatically activate when the transmission is placed in reverse.

5601-041
INSTRUMENTATION

An ergonomically designed instrument panel shall be provided. Each gauge shall be backlit with LED lamps. Stepper motor movements shall drive all gauges. The instrumentation system shall be multiplexed and shall receive ABS, engine, and transmission information over the J1939 data bus to reduce redundant sensors and wiring.

A twenty eight (28) icon lightbar message center with integral LCD odometer/trip odometer shall be included. The odometer shall display up to 999,999.9 miles. The trip odometer shall display 9,999.9 miles. The LCD message center screen shall be capable of custom configuration by the users for displaying certain vehicle status and diagnostic functions.

The instrument panel shall contain the following gauges:

One (1) three-movement gauge displaying vehicle speed, fuel level, and Diesel Exhaust Fluid (DEF) level. The primary scale on the speedometer shall read from 0 to 100 MPH, and the secondary scale on the speedometer shall read from 0 to 160 KM/H. The scale on the fuel and DEF level gauges shall read from empty to full as a fraction of full tank capacity. Red indicator lights in the gauge and an audible alarm shall indicate low fuel or low DEF at 1/8th tank level.

One (1) three-movement gauge displaying engine RPM, and primary and secondary air system pressures shall be included. The scale on the tachometer shall read from 0 to 3000 RPM. The scale on the air pressure gauges shall read from 0 to 150 pounds per square inch (PSI) with a red line zone indicating critical levels of air pressure. Red indicator lights in the gauge and an audible alarm shall indicate low air pressure.

One (1) four-movement gauge displaying engine oil pressure, coolant temperature, voltmeter, and transmission temperature shall be included. The scale on the engine oil pressure gauge shall read from 0 to 100 pounds PSI with a red line zone indicating critical levels of oil pressure. A red indicator light in the gauge and audible alarm shall indicate low engine oil pressure. The scale on the coolant temperature gauge shall read from 100 to 250 degrees Fahrenheit (°F) with a red line zone indicating critical coolant temperatures. A red indicator light in the gauge and audible alarm shall indicate high coolant temperature. The scale on the voltmeter shall read from 9 to 18 volts with a red line zone indicating critical levels of battery voltage. A red indicator light in the gauge and an audible alarm shall indicate high or low system voltage. The low voltage alarm shall indicate when the system voltage has dropped below 11.8 volts for more than 120 seconds in accordance with the requirements of NFPA 1901. The scale on the transmission temperature gauge shall read from 100 to 300 degrees °F with a red line zone indicating critical temperatures. A red indicator light in the gauge and an audible alarm shall indicate a high transmission temperature.

The light bar portion of the message center shall include twenty-eight (28) LED backlit indicators. The lightbar shall be split with fourteen (14) indicators on each side of the LCD message screen. The lightbar shall contain the following indicators and produce the following audible alarms when supplied in conjunction with applicable configurations:

RED INDICATORS

- Stop Engine - indicates critical engine fault
- Air Filter Restricted - indicates excessive engine air intake restriction
- Park Brake - indicates parking brake is set
- Seat Belt - indicates a seat is occupied and corresponding seat belt remains unfastened
- Low Coolant - indicates critically low engine coolant
- Cab Tilt Lock - indicates the cab tilt system locks are not engaged.

AMBER INDICATORS

- Malfunction Indicator Lamp (MIL) - indicates an engine emission control system fault
- Check Engine - indicates engine fault
- Check Transmission - indicates transmission fault
- Anti-Lock Brake System (ABS) - indicates anti-lock brake system fault
- High exhaust system temperature – indicates elevated exhaust temperatures
- Water in Fuel - indicates presence of water in fuel filter
- Wait to Start - indicates active engine air preheat cycle
- Windshield Washer Fluid – indicates washer fluid is low
- DPF restriction - indicates a restriction of the diesel particulate filter
- Regen Inhibit - indicates regeneration of the DPF has been inhibited by the operator
- Range Inhibit - indicates a transmission operation is prevented and requested shift request may not occur.
- SRS - indicates a problem in the supplemental restraint system
- Check Message - indicates a vehicle status or diagnostic message on the LCD display requiring attention.

GREEN INDICATORS

- Left and Right turn signal indicators
- ATC - indicates low wheel traction for automatic traction control equipped vehicles, also indicates mud/snow mode is active for ATC system
- High Idle - indicates engine high idle is active.
- Cruise Control - indicates cruise control is enabled
- OK to Pump - indicates the pump is engaged and conditions have been met for pump operations
- Pump Engaged - indicates the pump transmission is currently in pump gear
- Auxiliary Brake - indicates secondary braking device is active

BLUE INDICATORS

High Beam indicator

AUDIBLE ALARMS

Air Filter Restriction
Cab Tilt Lock
Check Engine
Check Transmission
Open Door/Compartment High Coolant
Temperature High or Low System Voltage
High Transmission Temperature
Low Air Pressure Low Coolant Level
Low DEF Level
Low Engine Oil Pressure
Low Fuel
Seatbelt Indicator Stop Engine Water in Fuel
Extended Left/Right Turn Signal On
ABS System Fault

5624-003

BACKLIGHTING COLOR

The instrumentation gauges and the switch panel legends shall be backlit using white LED backlighting.

5701-300

RADIO

A Jensen brand heavy-duty radio with weather band, AM/FM stereo receiver and Bluetooth capabilities shall be installed in a customer specified location. Radio shall be the current, commercially available heavy-duty single-DIN automotive model at time of vehicle manufacturing date.

5736-100

RADIO LOCATION

The radio shall be installed in the left hand overhead position above the driver.

5707-002

AM/FM ANTENNA

A small antenna shall be located on the left hand side of the cab roof for AM/FM and weather band reception.

5737-200

RADIO SPEAKERS

There shall be two (2) speakers installed in the front portion of the cab recessed overhead and two (2) speakers installed in the rear portion of the cab overhead. The speakers shall be provided for connection to the sound system.

5727-002

CAMERA RIGHT HAND

One (1) Audiovox Voyager heavy duty rearview teardrop shaped chrome plated housing camera shall be mounted on the officer side of the cab below the windshield ahead of the front door at approximately the same level as the cab door handles. The camera display shall activate when the right side turn signal is activated.

5728-012

CAMERA REAR

One (1) Audiovox Voyager heavy duty box shaped HD camera shall be shipped loose for OEM installation in the body to afford the driver a clear view to the rear of the vehicle.

The rear camera display shall activate when the vehicle's transmission is placed in reverse.

5731-004

CAMERA DISPLAY

The camera system shall be wired to a single vehicle display and control screen located on the driver's side dash. The camera system display can be activated through the vehicle display and control screen.

5703-010

COMMUNICATION ANTENNA

An antenna base, for use with an NMO type antenna, shall be mounted on the right hand front corner of the cab roof so not to interfere with light bars or other roof mounted equipment installed by chassis builder. The antenna base shall be an Antenex model MABVT8 made for either a 0.38 inch or 0.75 inch receiving hole in the antenna and shall include 17.00 foot of RG58 A/U cable with no connector at the radio end of the cable. The antenna base design provides the most corrosion resistance and best power transfer available from a high temper all brass construction and gold plated contact design. The antenna base shall be chassis builder supplied.

5708-003

COMMUNICATION ANTENNA CABLE ROUTING

The antenna cable shall be routed from the antenna base mounted on the roof to the area inside the center rocker switch console.

5702-023

TWO-WAY RADIOS

A radio wire conduit with a pull wire included shall be installed and routed from behind the dash to under the officer's seat for radio installation by the customer. The officer's under seat storage area shall include an access hole for the conduit cut into the rear

face of the seat box. The hole shall be approximately 1.00 inch from the bottom and 1.00 from the inner wall of the seat box.

8806-001
FIRE EXTINGUISHER

A 2.50 pound D.O.T approved fire extinguisher with BC rating shall be shipped loose with the cab.

8807-002
ROAD SAFETY KIT

The cab and chassis shall include one (1) emergency road safety triangle kit.

8810-001
DOOR KEYS

The cab and chassis shall include a total of four (4) door keys for the manual door locks.

8003-197
WARRANTY

Purchaser shall receive a Custom Chassis Two (2) Years or 36,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0102. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

8030-021
CHASSIS OPERATION MANUAL

The chassis operation manual shall be contained in an on board USB digital storage device. The chassis operation manual shall be accessible through a USB port provided in the OBD diagnostic panel.

8031-024
ENGINE AND TRANSMISSION OPERATION MANUALS

The following manuals specific to the engine and transmission models ordered will be included with the chassis in the ship loose items:

- (1) Hard copy of the Engine Operation and Maintenance manual with digital copy
- (1) Digital copy of the Transmission Operator's manual
- (1) Digital copy of the Engine Owner's manual

8805-019

CAB/CHASSIS AS BUILT WIRING DIAGRAMS

The cab and chassis wiring schematics and option wiring diagrams shall be contained in an on board USB digital storage device. The cab and chassis wiring schematics and option wiring diagrams shall be accessible through a USB port provided in the OBD diagnostic panel.

8039-001

SALES TERMS

The sale of the chassis shall be governed by the terms contained on the Sales Terms – Acceptance of Purchase Order document, a copy of which is attached to this option.

9005-003

DRIVELINE LAYOUT CONFIRMATION

During the design phase of the chassis the Spartan Chassis driveline engineer shall submit the driveline layout to an OEM engineer to review the chassis design for any potential problems integrating the OEM body to the chassis. The OEM engineer shall provide approval to the driveline engineer prior to driveline bills of materials being released.

BODY AND AERIAL SPECIFICATIONS

INTENT OF SPECIFICATIONS

It is the intent of these specifications to cover the furnishing and delivery to the purchaser of a complete apparatus equipped as herein specified. With a view to obtaining the best results and the most acceptable apparatus for service in the fire department, these specifications cover the general requirements as to the type of construction, together with certain details as to finish, equipment, and appliances with which the successful bidder must conform. Minor details of construction and materials where not otherwise specified are left to the discretion of the contractor, who shall be solely responsible for the design and construction of all features.

Bids shall only be considered from companies that have an established reputation in the field of fire apparatus construction and have been in business for a minimum of 50 years.

Each bidder shall furnish satisfactory evidence of his ability to construct the apparatus specified. The bidder shall also show that they are in a position to render prompt service and furnish replacement parts for said apparatus.

Aerials containing load ratings and capabilities of the highest level within the respective model class shall be accepted. Bids submitted containing medium duty or light duty aerial ladders shall not be considered as meeting minimum requirements and will automatically be rejected.

DRAWINGS

All bid drawings shall be stamped PROPOSAL.

Drawings shall be supplied. The provided drawings can be printed to any paper size, but the scale will only be valid when printed to the paper size listed in the title block. Drawings shall show five (5) views: left (drivers), right (officers), front, rear, and top.

SPECIALIZATION

Due to the complexity of the apparatus proposed, it is the desire of the purchaser to obtain equipment that is built by companies that specialize in the construction in accordance with NFPA, current edition compliant aerial devices.

The aerial device shall be engineered and fabricated by a manufacturer with a minimum of 40 years of experience in the aerial field. No exceptions shall be allowed.

No prototype devices or aerals without a proven field record shall be acceptable. The aerial device provided shall be of the highest quality available in the industry.

SAFETY REQUIREMENTS

It is required that the bidder shall meet all State and Federal safety standards and laws that are in effect on the date of the bid for the item(s) that are specified and the particular use for which they are meant.

GENERAL CONSTRUCTION

The complete apparatus, assemblies, sub-assemblies, component parts etc., shall be designed and constructed with due consideration to the nature and distribution of the load to be sustained and to the general character of service which the apparatus is to be subjected when placed in service.

All parts of the apparatus shall be strong enough to withstand the general service under full load. The apparatus shall be so designed that the various parts are readily accessible for lubrication, inspection, adjustment, and repair. The apparatus shall be designed and constructed, and the equipment mounted, with due consideration to the distribution of the load between the front and rear axles, and side to side loading that all specified equipment, including a full complement of specified ground ladders, full water tank, loose equipment, and firefighters; shall be carried without overloading or damaging the apparatus in accordance with NFPA, current edition requirements.

LIABILITY

The bidder, if their bid is accepted, shall defend any and all suits and assume all liability for the use of any patented process, device or article forming a part of the apparatus or any appliance furnished under the contract.

WARRANTY

A copy of the warranties for the chassis, pump, body, paint, water tank (if applicable), aerial device, waterway, and waterway seals shall be furnished with each bidder's proposal.

INFORMATION REQUIRED UPON DELIVERY

The manufacturer shall supply at the time of delivery at least two copies of a complete operation and maintenance manual covering the completed aerial device as delivered.

Parts manuals, where possible, shall be cross-referenced to show the actual manufacturer's name, part number and description on all parts and fittings that are commercially available.

DESIGN / CONSTRUCTION / TESTING CRITERIA

The following criteria shall be applicable to this specification to the extent specified herein:

NFPA, Current Edition

American Society for Testing and Materials (ATSM A-36) Society of Automotive Engineers, Inc. (SAE) "SAE Handbook" American

Welding Society (AWS) AWSO 14.4-77

American Welding Society (AWS) D1.1 and D1.2

American Society of Non-Destructive Testing (ASNT) "ASNT CP-189

The aerial ladder shall be designed, fabricated, and tested in accordance with the above codes and specifications, as well as all other applicable codes, standards, and specifications that may be referenced by any of the above.

NON-DESTRUCTIVE TESTING

Steel ladders, turntable, stabilizers, and torque box shall have 100% of all welds tested using both magnetic particle method and visual testing method. Aerials that are fabricated of aluminum shall have 100% of all welds tested using dye penetrant method and visual method. All testing shall be performed by certified technicians, which are employees of an independent nationally recognized and certified third-party testing company. Manufacturers who rely on visual inspection (either in-house or by a third party) as the primary method of testing, and magnetic particle or dye penetrant as a secondary or "proving" test method for only suspect areas shall not be acceptable. In any case, welds shall be tested using two (2) separate NDT inspection methods regardless of the material used to construct the aerial device.

THIRD PARTY CERTIFICATION

All bids shall include copies of the certification of testing of the aerial device. The purchaser desires a device that has been tested by a third party for compliance with the minimum 2 to 1 safety factor specified in accordance with NFPA, current edition. Devices that have not been certified by a third party engineering firm that is independent of the manufacturer shall not be acceptable, no exceptions.

AERIAL DEVICE SAFETY FACTOR AND RATED CAPACITY

The purchaser desires to purchase, using these specifications, an aerial device with a minimum 2.0:1 Safety Factor as required and defined in accordance with NFPA, current edition. Therefore, the aerial manufacturer shall hereby certify, by submitting a bid for these specifications that the aerial device meets or exceeds all requirements and conditions in these specifications, no exceptions.

ROADABILITY

The apparatus, when fully equipped and loaded, shall be capable of the following performance while on dry paved roads that are in good condition:

Accelerating from 0 to 35 mph within 25 seconds on a 0 percent grade

Attaining a speed of 50 mph on 0 percent grade

Maintaining a speed of at least 20 mph on any grade up to and including 6 percent

The maximum top speed of the apparatus shall not exceed the tire manufacturer's maximum speed rating for the tires installed on the apparatus

FAILURE TO MEET TESTS

In the event the apparatus fails to meet the test requirements of these specifications on the first trials, second trials may be made at the option of the bidder within 30 days of the date of the first trials.

Such trials shall be final and conclusive and failure to comply with these requirements shall be cause for rejection. Failure to comply with changes as required to conform to any clause of the specifications within 30 days after notice is given to the bidder of such changes, shall be cause for rejection of the apparatus.

Permission to keep or store the apparatus in any building owned or occupied by the department during the specified period, with the permission of the bidder, shall not constitute acceptance.

AWARD OF CONTRACT

All bids submitted shall be valid for a minimum of 30 days during which time bid securities submitted with the proposals shall be held by the purchaser. Criteria for the award shall include, but not be limited to, the following:

Apparatus Performance And Safety Levels / Considerations

Completeness of proposal Accuracy of
accompanying data Past performance
of bidder

Compliance with the detailed specifications

Compliance with purchasers request(s) for personnel qualifications or certifications

Exceptions and clarifications

Financial stability of bidder

Local representation of the manufacturer

Serviceability of the proposed apparatus

Service capabilities of the bidder's local representative

Compliance with NFPA, current edition
Any other factor the purchaser deems relevant

After the evaluation and award process is complete, all bidders shall be notified of the results and securities shall be returned.

ENGINE AVAILABILITY

If an L9 engine is NOT available or cannot be provided for that specific quote or build slot at time of production, the engine will automatically be upgraded and charged for an X12 (or the X10 engine) with all costs associated with the upgrade being passed on to the end user. No exceptions.

If a pre-2027 emission engine is NOT available at the time of build (starting production on January 1, 2026) the order will automatically be upgraded and charged for either the 2027 engine compliant Cummins X-10 or X-15, with all associated costs being passed on to the end user. No exceptions.

NFPA

The National Fire Protection Association "Standard for Automotive Fire Apparatus", is hereby adopted and made a part of these specifications, the same as if it were written out in full detail, with the exception of the section dealing with "Equipment Recommended for Various Types of Apparatus". Bidders shall provide the equipment requested herein and the buyer shall supply the rest before the apparatus is put into service. It is the intent of the purchaser to purchase an apparatus that meets 100% of the minimum standards defined and outlined in NFPA latest edition. There are to be no exceptions to this requirement.

INSPECTION CERTIFICATE - NFPA COMPLIANCE

An OEM inspection certificate for the apparatus shall be furnished upon delivery. The purpose of this NFPA compliance inspection shall be to serve as proof to the customer that all applicable standards have been met or exceeded by the responsible manufacturer.

The following objectives shall be achieved as a result (this listing shall not be construed as being all inclusive):

Ensure that understanding of all parties respective responsibilities have been addressed by the actual referencing of NFPA and the amendments in these specifications and the purchase contract and documentation.

Ensure that only structural materials complying with appropriate standards and codes are used for construction.

Ensure the applicable standards of design and manufacturing have been met or exceeded.

Ensure that safety factors have been met or exceeded where required.

Ensure that applicable standards for testing and inspection have been met or exceeded by personnel with the appropriate qualifications, experience, and certifications.

Ensure that where applicable components, equipment, and loose equipment carry the appropriate characteristics, classifications, and/or certifications.

Ensure that in general and as a whole, all applicable requirements set forth in NFPA, and those codes, standards, and specifications referenced by said parties are met, exceeded, and/or addressed.

CONSTRUCTION DOCUMENTATION

The contractor shall supply, at the time of delivery, at least one (1) copy of the following documents:

1. The manufacturer's record of apparatus construction details, including the following information:

Owners name and address

Apparatus manufacturer, model, and serial number

Chassis make, model, and serial number

GAWR of front and rear axles

Front tire size and total rated capacity in pounds or kilograms

Rear tire size and total rated capacity in pounds or kilograms

Chassis weight distribution in pounds with water and manufacturer mounted equipment (front and rear)

Engine make, model, serial number, rated horsepower, related speed, and governed speed

Type of fuel and fuel tank capacity

Electrical system voltage and alternator output in amps

Battery make, model, and capacity in cold cranking amps (CCA)

Chassis transmission make, model, and serial number; and if so equipped, chassis transmission PTO(s) make, model, and gear ratio

If applicable, the pump make, model, rated capacity in gallons or liters per minute, and serial number

Pump transmission make, model, serial number, and gear ratio, if unit is equipped with a pump

If applicable, the auxiliary pump make, model, rated capacity in gallons or liters per minute, and serial number

Water tank certified capacity in gallons or liters

On aerial apparatus, the device type, rated vertical height in feet or meters, rated horizontal reach in feet or meters, and rated capacity in pounds or kilograms

Paint manufacturer and paint number(s)

Company name and signature of responsible company representative

2. Certification of slip resistance of all stepping, standing, and walking surfaces

3. If the apparatus has a fire pump, a copy of the following shall be provided: pump manufacturers certification of suction capability, apparatus manufacturers approval for stationary pumping applications, engine manufacturers certified brake horsepower curve

showing the maximum governed speed, pump manufacturers certification of the hydrostatic test, and the certification of inspection and test for the fire pump

4. If the apparatus has an aerial device, the certification of inspection and test for the aerial device, and all the technical information required for inspections to comply with NFPA 1914, Standard for Testing Fire Department Aerial Devices

5. If the apparatus has a fixed line voltage power source, the certification of the test for the fixed power source

6. If the apparatus is equipped with an air system, test results of the air quality, the SCBA fill station, and the air system installation

7. Weight documents from a certified scale showing actual loading on the front axle, rear axle(s), and overall fire apparatus (with the water tank full but without personnel, equipment, and hose)

8. Written load analysis and results of the electrical system performance tests

9. When the apparatus is equipped with a water tank, the certification of water tank capacity

OPERATION AND SERVICE DOCUMENTATION

The contractor shall supply at the time of delivery, at least two (2) sets of complete operation and service documentation covering the completed apparatus as delivered and accepted. The documentation shall address at least the inspection, service, and operations of the fire apparatus and all major components thereof. The contractor shall also provide documentation of the following items for the entire apparatus and each major operating system or major component of the apparatus:

Manufacturers name and address

Country of manufacturer

Source of service and technical information

Parts and replacement information

Descriptions, specifications, and ratings of the chassis, pump, and aerial device

Wiring diagrams for low voltage and line voltage systems to include the following information: representations of circuit logic for all electrical components and wiring, circuit identification, connector pin identification, zone location of electrical components, safety interlocks, alternator-battery power distribution circuits, and input/ output assignment sheets or equivalent circuit logic implemented in multiplexing systems

Lubrication charts

Operating instructions for the chassis, any major components such as a pump or aerial device, and any auxiliary systems

Precautions related to multiple configurations of aerial devices, if applicable

Instructions regarding the frequency and procedure for recommended maintenance

Overall apparatus operating instructions

Safety considerations
Limitations of use Inspection procedures
Recommended service procedures
Troubleshooting guide
Apparatus body, chassis, and other component manufacturers warranties
Special data required by this standard
Copies of required manufacturer test data or reports, manufacturer certifications, and independent third-party certifications of test results
A material safety data sheet (MSDS) for any fluid that is specified for use on the apparatus
One (1) copy of the FAMA Safety Guide
The contractor shall deliver with the apparatus all manufacturers operations and service documents supplied with components and equipment that are installed or supplied by the contractor.

OWNER'S MANUAL

An owner's manual containing the construction, operation, and service documentation shall be provided on a USB Drive. One (1) copy of the USB shall be provided with the apparatus.

ELECTRICAL MANUAL

A complete electrical manual for the apparatus shall also be provided on the USB Drive. This manual shall be specifically prepared for this individual unit rather than a generic schematic manual designed to accommodate all apparatus. The electrical manual shall also include electrical schematics, harness layouts, V-Mux specifications (including Node Input/output Spreadsheet and Node Relationship Spreadsheet), and Master Wire Listing. A contact letter shall also be provided by the electrical engineer, who built the manual, with instructions on using the manual and contact information for assistance with electrical manual questions.

ELECTRICAL SCHEMATICS

A section of the electrical manual shall include schematics of the electrical system and components on the apparatus. These schematics shall be specifically prepared for this individual unit rather than a generic schematic designed to accommodate all apparatus.

PUMP PLUMBING SCHEMATICS (if applicable)

A section of the electrical manual shall include a schematic of the pump plumbing. This schematic shall be specifically prepared for this individual unit rather than a generic schematic designed to accommodate all apparatus.

HYDRAULIC SCHEMATICS (if applicable)

A section of the electrical manual shall include schematics of the hydraulic components on the apparatus including but not limited to:

Ladder Rack(s) and Hose Bed Door(s) (if applicable)
Aerial - Retraction/Extension (if applicable)
Aerial - Rotation (if applicable)
Tiller - HVAC Hydraulics System (if applicable)

FIRE APPARATUS SAFETY GUIDE

One (1) printed copy of the FAMA Fire Apparatus Safety Guide shall be provided with the apparatus. This guide provides safety instructions for operations of the fire apparatus.

AERIAL OPERATION/PARTS/MAINTENANCE MANUALS

One (1) printed aerial operation and maintenance manual shall be provided with the apparatus at the time of delivery. These manuals shall be written in a "step by step" format for ease of reference. One (1) USB shall be provided with a digital copy of the aerial manuals included with the printed version. Finally, a digital version of the aerial manuals will also be included with the complete Owner's Manual USB for the apparatus.

Information included in the manuals shall include, but not be limited to the following:

1. Manufacturer Defined Terminology; (to help impart full understanding of terminology used in the manuals)
2. Safety Information and Warnings; (to warn of dangerous conditions/personnel injury/equipment damage)
3. Complete Rated Capacities Information; (allowable loads and GPM flows)
4. Complete and Detailed Operating Systems Descriptions; (to impart understanding of operation/capabilities/working principles)
5. Instruction For Manufacturer Recommended Deployment and Operation Of All Systems During All Specific Conditions; (to ensure safer, more efficient operation of the aerial device)
6. Current, Actual Illustrations Of Aerial Components Throughout The Manual; (to aid in location of specific components, being addressed in the manual)
7. Complete Maintenance Instructions/Methods/Materials/Intervals/Inspections.

AERIAL LADDER DEVICE DEMONSTRATION - (3) DAYS

A factory trained and authorized instructor shall provide three (3) consecutive days of on-site classes after apparatus acceptance.

Topics covered in the class shall include:

General familiarization and demonstration of aerial device

Aerial apparatus safety including a review of all safety devices, interlocks, and operational hazards

Positioning and locating the vehicle for safe operations Chassis

parking brakes and engagement of hydraulic system Deployment of

stabilization devices and use of ground pads Operation of elevation,

extension, and rotation of the aerial device

Operation of waterway, nozzle, and other firefighting devices of aerial device

Operation and use of breathing air system

Specific aerial device maintenance and service areas for operators

Shutdown and return to service operations

Operation of tip controls and platform controls if equipped

Classes shall consist of presentations as well as hands-on demonstration.

MISCELLANEOUS EQUIPMENT ALLOWANCE

The Gross Axle Weight Rating (GAWR) and the Gross Combined Weight Rating (GCWR) or Gross Vehicle Weight Rating (GVWR) of the chassis shall be adequate to carry the weight of the unequipped apparatus with the water tank and other tanks full, specified hose load, unequipped personnel weight, ground ladders, and miscellaneous equipment allowance of 2,500 pounds.

TILT TABLE TESTING NOT REQUIRED

The chassis of the apparatus is equipped with Electronic Stability Control (ESC), which is in accordance with NFPA, current edition. requirement of maintaining a stability of 26.5 degrees in both directions.

VEHICLE STABILITY

The apparatus shall comply with the requirements of NFPA, current edition as it applies to vehicle stability. The particular apparatus as described in the specification provided within the bid package shall be classified into one of the following categories:

The apparatus shall go through actual tilt table testing which shall be determined by the apparatus manufacturer.

The apparatus shall be equipped with a rollover stability control system as defined in section 4.13.1.2 of NFPA, current edition.

The apparatus shall be deemed a similar apparatus and meeting the intent of section 4.13.1.1.2 of NFPA, current edition.

INDEPENDENT THIRD PARTY PUMP CERTIFICATION

The fire pump shall be tested and certified by an independent third party testing company. Tests shall be conducted so that the pump performs as listed below:

- 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% of rated capacity at 165 pounds net pressure

The entire pump, both suction and discharge passages, shall be hydrostatically tested to a pressure of 600 PSI. The pump shall be fully tested at the pump manufacturer's factory to the performance spots as outlined in accordance with NFPA, current edition. The pump shall be free from objectionable pulsation and vibration.

PUMP CERTIFICATION

The pump shall be certified in U.S. gallons per minute (GPM).

ONLINE CUSTOMER INTERACTION

Smeal Holding LLC. shall provide the capability for online access.

The fire department shall be able to view digital photos of their apparatus in the specified phases of construction.

The following phases will be captured and displayed:

- Chassis arrival to the OEM
- Fabrication
- Pump and Plumbing
- Paint
- Assembly
- Completion of production

The photos shall be uploaded to a secure website, only accessible to the customer and representatives of the OEM.

CONTRACT AWARD CONFERENCE

CSI Emergency Apparatus will provide, during manufacturing, a contract award conference at the Spartan ER manufacturing facility in Charlotte, MI with up to five (5) individuals from the Fire Department to discuss dealer upfit items

CSI Emergency Apparatus has included all meal expenses for this meeting. Being this meeting is a one day meeting held in Charlotte Michigan, travel and lodging is not included.

CHASSIS INSPECTION

CSI Emergency Apparatus will provide, at the midpoint of manufacturing (final completion of the chassis) an inspection conference at the Spartan ER chassis manufacturing facility Charlotte MI with up to five (5) individuals from the Fire Department to inspect the completed chassis before the body is installed.

CSI Emergency Apparatus has included all meal expenses for this meeting. Being this meeting is a one day meeting held in Charlotte Michigan, travel and lodging is not included.

FINAL INSPECTION CONFERENCE

CSI Emergency Apparatus will provide, during manufacturing, a final completion inspection conference at the Spartan ER manufacturing facility in Snyder, NE with up to five (5) individuals from the Fire Department to inspect the apparatus after construction.

CSI Emergency Apparatus includes all transportation, lodging, and meal expenses. Travel will be via Commercial Air. Air travel will be provided from Detroit Metro Airport, Detroit, MI. Customer rooms have been calculated with single occupancy.

MAXIMUM OVERALL HEIGHT

The overall height of the apparatus shall not exceed 138" (11'-6") from the ground. This measurement shall be taken with the tires properly inflated and with the apparatus in the unloaded condition to ensure a maximum overall height. In order to provide the maximum overall height, proposed units using calculated weight as a means to achieve a lower overall height shall not be accepted. The measurement shall be taken at the highest point of the apparatus.

MAXIMUM OVERALL LENGTH

The overall length of the apparatus shall not exceed 451" (37'-7").

WHEELBASE

The wheelbase of the apparatus shall not exceed 218".

ANGLE OF APPROACH

The angle of approach of the apparatus shall be a minimum of 8 degrees.

ANGLE OF DEPARTURE

The angle of departure of the apparatus shall be a minimum of 8 degrees.

SPARTAN METRO STAR CHASSIS

The chassis shall be a Spartan Metro Star.

EXHAUST MITIGATION DEVICE

The chassis supplied exhaust mitigation device shall be installed by the apparatus body manufacturer.

CHASSIS AIR LINES

All chassis air brake system lines and accessories supplied by or connected to the chassis air brake system shall be plumbed using DOT approved compression style brass fittings with compression sleeves and stainless steel inserts.

Pipe thread connections shall be sealed with thread sealant containing PTFE that is fast dry, flexible set thread sealant designed for high vibration environments and shall be compatible with all fluids that may exist, or be used in the maintenance of fire apparatus (including, but not limited to: water, DEF, diesel fuel, brake clean, fire suppression foam, engine coolant, motor oil, various greases, transmission fluid, hydraulic fluids, etc.) - TEFLON TAPE THREAD SEALANT SHALL NOT BE USED

All air systems shall be continuous endpoint-to-endpoint runs. HOSES SHALL NOT BE EXTENDED USING ANY TYPE OF COUPLING SOLELY FOR THE PUPOSE OF LENGTHENING THE RUN OF HOSE.

The air system of the completed vehicle shall comply with FMVSS121.

MUD FLAPS

In addition to the chassis supplied front mud flaps, two (2) mud flaps shall be provided rearward of the rear axles on the apparatus.

RELOCATE CAB TILT

The cab tilt pendant shall be relocated as deemed best fit by the OEM.

Front Bumper Storage Well Flooring

One (1) front bumper storage well shall utilize Turtle Tile Plastics interlocking squares. For maximum slip resistance and drainage, each square shall have a grid surface design.

Door Open Warning Circuit, Wired to Light in Cab

A hazard warning circuit shall be tied to the circuit for the "open door" warning light in the chassis in addition to the vehicle display to alert the driver of an unsafe condition for moving the apparatus. The vehicle display shall have a specific screen to show the displayed alert. The screen shall show the apparatus in full driver's side, officer's side and rear views. The door, component or device that is not properly closed or stowed will be shown on the screen in the appropriate view. The light shall be illuminated automatically when the parking brake is not fully engaged and any of the following conditions exist:

Any equipment compartment door that is not closed (excluding compartments with 4 cubic foot (0.1 cubic meter) or less of volume; or have an opening of 144 square inches (92,000 square mm) or less; or doors that do extend sideways beyond the mirrors or up above the top of the fire apparatus);

Any ladder or equipment rack that is not in the stowed position;

Any device or component that is permanently attached to the apparatus that is open, extended, or deployed in a manner that is likely to cause damage to the apparatus that has been specified as being tied to the hazard warning circuit.

A warning placard shall be near the warning light that reads "DO NOT Move Apparatus When Light Is On."

WATER TANK

The apparatus shall be equipped with a United Plastic Fabricating (UPF) 480 U.S. gallon water tank. Certification of the tank capacity shall be recorded on the manufacturer's record of construction and shall be provided to the purchaser upon delivery of the apparatus. The water tank shall be constructed of polypropylene sheet stock, a non-corrosive stress relieved thermoplastic material, black in color, and UV-stabilized for maximum protection. The tank shall be of a specific configuration and shall be designed to be completely independent of the body and compartments. All joints and seams shall be nitrogen welded and tested for maximum strength and integrity. The top of the tank shall be fitted with removable lifting eyes designed with a 3:1 safety factor to facilitate easy removal.

TANK BAFFLES

The swash partitions shall be manufactured of natural color 3/8" PT2E polypropylene, with the transverse partitions extending from approximately 4" off the floor to just under the cover and the longitudinal partitions extending to the floor of the tank through the cover to allow for positive welding and maximum integrity. All partitions shall be equipped with vent and air holes to permit movement of air and water between compartments. The partitions shall be designed to provide maximum water flow, interlock with one another, and be welded to each other and the walls of the tank.

TANK SUMP

One (1) sump shall be provided in the bottom of the water tank, constructed of polypropylene, and located in the driver's side front quarter of the tank. Tanks requiring a front suction shall incorporate a 4" schedule 40 polypropylene pipe with a dip tube from the front of the tank to the sump location. The sump shall be used as a combination clean-out and drain. An anti-swirl plate shall be located approximately 2" above the sump.

TANK FILL CONNECTION

All tank fill couplings shall be backed with flow deflectors to break up the stream of water entering the tank, and shall be capable of withstanding sustained fill rates of up to 1,000 GPM. TANK LID

The tank lid shall be constructed of polypropylene and incorporate a three-piece locking design allowing for individual removal and inspection if necessary. The tank lid shall be recessed 3/8" from the top of the tank and welded to the sides and the longitudinal partitions for maximum integrity. The lid shall have hold downs consisting of 2" polypropylene dowels spaced a maximum of 30" apart. These dowels shall extend through the covers, ensuring the covers remain rigid under fast filling conditions. A minimum of two lifting dowels shall be drilled and tapped 1/2" x 13" to accommodate the lifting eyes.

WATER TANK MOUNTING

The water tank cradle shall be designed specifically for this apparatus. The cradle structure shall be supported by and welded directly to the top plate of the torque-box.

WATER TANK DRAIN

A 1-1/2" drain valve shall be provided in the pump compartment to drain the water tank. The valve shall include a locking lever to prevent accidental draining of the water tank.

WATER TANK FILL TOWER

The tank shall have a combination vent and manual fill tower, marked "Water Fill", located at the driver's side front corner of the tank. The fill tower shall be constructed of black 1/2" PT2E polypropylene and be a minimum dimension of 8" x 8" at the outer perimeter. The tower shall have a 1/4" thick removable polypropylene screen and a PT2E polypropylene hinged-type cover.

WATER TANK LEVEL GAUGE

One (1) Fire Research, model WLA300-A00, TankVision Pro 300 water tank level gauge shall be provided on the pump operator's control panel.

The gauge shall have nine (9) easy to see super bright RGB LEDs to show the tank volume. The display shall use a two-dimensional, two-element lens to refract the light from the LEDs to provide full 180° visibility for the level indication. The gauge shall start to flash when the tank volume is at 1/4 tank or less and use down scrolling LEDs to alert the pump operator when the tank is almost empty.

4" WATER TANK OVERFLOW

The tank shall be equipped with a minimum of a 4" schedule 40 polypropylene overflow/air vent pipe installed in the fill tower extending through the tank and dumping behind the rear axle.

The water tank overflow shall be extended below the fuel tank and rear axle so the overflow does not dump or spray on top of either.

FOAM CELL

One (1) United Plastic Fabricating (UPF) 20 U.S. gallon foam cell shall be incorporated into the water tank. One (1) pressure/vacuum vent shall be installed and one (1) drain hose shall be connected to the foam cell. The drain shall have a quarter-turn valve installed inside the pump compartment and it shall drain below the frame rail of the chassis.

The foam cell shall be designed for use with Class "A" foam.

Foam Cell Fill Tower, UPF, Black

The foam cell shall have a manual fill tower constructed of 1/2" PT3 polypropylene and shall be a minimum dimension of 8" x 8" outer perimeter. The foam fill tower shall be black in color, indicating the type of foam to be utilized and located on the officer's side front corner of the water tank. The capacity of the cell shall be engraved on the top of the fill tower lid. The tower shall have a 1/4" thick removable polypropylene screen and a stainless steel hinged-type cover. Inside the fill tower, approximately 1.5" down from the top, there shall be an anti-foam fill tube that extends down to the bottom of the cell. A pressure vacuum vent shall be provided in the lid of the fill tower.

HOSE BED

The hose bed shall be located ahead of the turntable support structure behind the water tank. The hose bed shall extend backward, past the side of the turntable support, and exit at the rear of the apparatus through one (1) access opening. The access opening shall be free of obstructions that may interfere with the deployment and loading of hose. One (1) painted aluminum door shall cover the hose bed access opening. The door shall be a horizontally hinged lift-up design with a positive latch gas strut hold open device. A 1" stainless steel body trim piece shall be at the rear-bottom of the hose bed, to protect the chevron striping when deploying hose.

The interior walls of the hose bed shall have an abraded aluminum finish.

The floor of the hose bed shall be constructed of Dura-Dek fiber reinforced plastic material to prevent the accumulation of water and to allow ventilation to aid in drying hose. The flooring shall be fabricated of "T" beam pultrusions in parallel connected with cross slats that are first mechanically bonded and then epoxied, forming a large sheet. The top portion of each "T" cross section shall measure 1-1/4" wide and 3/16" thick with beaded ends. The vertical portion shall be 3/8" thick, beading out at the bottom to a

thickness of 1/2" and tall enough to result in an overall height of 1". The "T" sections shall be spaced 3/4" apart to allow for drainage and ventilation.

Each "T" beam shall be constructed utilizing a core of 250,000 continuous glass fiber strands that are high in resistance to tension, compression and bending. An outer sheath consisting of a continuous strand mat to prevent linear splitting and slipping shall surround the core. The sheath shall also serve to draw the protective resin to the bar surface. Both reinforcements shall be pulled through an isophthalic polyester resin, treated with antimony trioxide for fire resistance, to form a solid length. The flooring shall then be protected with a polyurethane coating to screen out ultraviolet rays. The bright white coating shall be baked on.

The hose bed shall contain the following hose load:

HOSE BED CAPACITY

The hose bed shall have a minimum capacity of 30 ft³ of hose storage.

TOP / END COVERS

The top and/or end covers shall be provided and installed by the dealer/Customer. The customer shall sign a statement of exceptions.

HOSE BED LOADING LIGHTS

Two (2) OnScene Access LED hose bed loading lights shall be provided to illuminate of the hose bed area in accordance with NFPA, current edition. Two (2) shall be located as deemed best by the body builder unless stated in the shop note. The hose bed lighting circuit shall be activated when the parking brake is engaged.

ALUMINUM BODY CONSTRUCTION

The apparatus body shall be fabricated from 1/8" 5052-H32, smooth aluminum sheet. The total outside width of the apparatus body shall not exceed 100 inches. The width measurement of the sidewalls shall be made from the outside wall of the two opposite sides of the body.

The complete apparatus body shall be fabricated utilizing the break and bend techniques in order to form a strong, yet flexible, uni-body structure. The body shall be constructed with holding fixtures to ensure proper dimensioning. Each apparatus body is specific in design in order to meet the unique requirements of the purchasing fire department.

The main body compartments on each side, as well as the rear center compartment if applicable, shall contain a sweep out floor design. Each compartment shall be made to the most practical dimensions in order to provide maximum storage capacity for the fire department's equipment. The door opening threshold shall be positioned lower than the compartment floor permitting easy cleaning of the compartments.

Continuous, solid welded seams shall be located at the upper front and upper rear corners of the apparatus body. The flooring of all lower, main body compartmentation shall also have solid weld seams. All door jams, on both the top and the bottom, shall be solid welded as well. Each main door jam consists of a double jam design; this is comparable to a double struck frame design, which provides superior strength and durability. All double door jams are to be welded together utilizing the plug weld technique. All remaining compartment walls shall be stitch welded.

The compartment floors, specifically L1 and R1, shall have a minimum of two (2) 2" x 2" square tubes welded to the entire width of the compartment floor. The two (2) rear side compartments as well as the rear center compartment, if applicable, shall be welded to the rear deck support structure. This rear deck support structure is specially designed for the galvanized apparatus body substructure. Each lower, rear compartment shall be adequately stitch welded to the cross tubes providing strength and durability to the entire apparatus body.

The body design shall include a "false wall" design in the lower portion of each lower, rear compartment. This "false wall" is required in order to allow for easy accessibility to the rear electrical components found in the rear tail light cluster area.

On the upper area of the apparatus body, directly above the side compartment door openings, a header is to be fabricated from smooth, aluminum sheet. This area shall be free of any body seams and shall be painted the same color as the apparatus body. The height of the header may vary depending on the following factors: apparatus design, lettering requirements, scene lights and warning light requirements as well as various other options. A "J" channel shall be incorporated into the body design in order to provide a rain gutter to further assist in preventing excessive moisture from getting into the compartments.

SIDE COMPARTMENT DOORS

ROM roll-up doors shall be installed on each side body compartment, eight (8) total. Each door shall be a shutter type with slats that roll onto a spool at the top of the compartment. Each slat shall be equipped with nylon end shoes to assure operation without the need for constant lubrication. The door slats and tracks shall be wet painted by the door manufacturer to match the apparatus body.

Each ROM roll-up door shall be supplied with a full-width lift bar and finger pull handle integrated into the bottom rail for easy one hand operation.

DOOR HANDLES

The door handles on the side body compartments of the apparatus shall be non-locking style

PULL DOWN STRAP

There shall be vendor supplied pull down straps installed on each roll-up door.

REAR COMPARTMENT DOOR

One (1) horizontally hinged lap type compartment door shall be installed. The lap door shall be a single panel construction and fabricated of aluminum. The door shall be painted job color. The edges of the door shall be formed to an inward angle for added rigidity. A rubber molding shall be installed in the overlap area of the door to ensure a weatherproof seal and prevent water from collecting in the door sill. The compartment door shall have a polished stainless steel continuous hinge with a rubber seal installed between the hinge and the aluminum door to separate the dissimilar metals. The hinge pin shall be stainless steel with a minimum diameter of 1/4".

The compartment door handle shall be a non-locking stainless steel recessed "D" ring type handle. A safety latch with striker plate shall be included with the door handle assembly.

Two (2) pressurized gas-filled cylinders shall be furnished on the compartment door. The cylinders shall hold the door in the open position and assist in raising it. The gas filled cylinders shall assist in closing the door automatically when the door is positioned over the center.

Inner Door Face, (1) Rear Door, Painted Main Body Color

The inner door face shall be painted the primary body color. The panels shall have a grade "B" paint finish, therefore it will not be buffed and may be subject to imperfections.

BODY COMPARTMENT LIGHTING

A total of sixteen (16) ROM LED compartment lights shall be installed in the body compartments. Each light shall feature solid state construction and be waterproof to IPX7 rating. The LED lights shall offer 250 lumens per 12" of lighting.

COMPARTMENT COATING

The interior of the body compartments shall be coated with gray Bedliner Coating unless otherwise specified. The coating shall be durable enough to withstand the everyday wear and tear of equipment removal and shifting.

TURTLE TILES

Black Turtle Tile Plastics interlocking squares shall be provided in all of the body side compartments. The Turtle Tiles shall be applied on compartment floors Only. For maximum slip resistance and drainage each square shall have a grid surface design.

COMPARTMENT AIR RELEASE

Each compartment shall be vented to help remove trapped air when closing the compartment door. The vent shall be a rubber gasket in the area of the outboard corners of the compartment. Wiring may also be run through these areas.

COMPARTMENT DRAIN HOLES

Each body compartment shall be equipped with drain holes to allow standing water to exit underneath the apparatus.

SILL PROTECTORS

A stainless steel angle sill protector shall be installed on the bottom sill area of the compartment with a lap style door to aid in reducing paint damage from equipment. The sill protector shall be attached using permanent-bonding double-sided tape.

FUEL FILL

A fuel fill pocket shall be located in the rear wheel well area on the driver's side. The fuel fill shall utilize a stainless steel OEM door that is painted primary body color. The hinge and frame shall all be constructed out of stainless steel material.

Fuel Tank Vent Line

The fuel fill vent line shall be attached to the hose barb using a hose clamp.

STANDARD WHEEL WELL STORAGE

The wheel well area of the apparatus shall be designed to additional components.

DRIVER'S (L) SIDE BODY COMPARTMENTS

COMPARTMENT L1

A full height compartment shall be located ahead of the rear wheels on the driver's side of the apparatus body. This compartment shall be designated as L1 within these specifications and any ensuing paperwork or drawings after contract execution.

The dimensions of the compartment shall be:

Height: 62"

Width: 52"

Depth: 14" Upper and 23" Lower

Intermediate Divide Height: 30"

COMPARTMENT L2

A standard height compartment shall be located above the rear wheels on the driver's side of the apparatus body. This compartment shall be designated as L2 within these specifications and any ensuing paperwork or drawings after contract execution.

The dimensions of the compartment shall be:

Height: 28"
Width: 28"
Depth: 14" Upper and 14" Lower
Intermediate Divide Height: 0"

COMPARTMENT L3

A standard height compartment shall be located above the rear wheels on the driver's side of the apparatus body. This compartment shall be designated as L3 within these specifications and any ensuing paperwork or drawings after contract execution.

The dimensions of the compartment shall be:

Height: 20"
Width: 50"
Depth: 14" Upper and 14" Lower
Intermediate Divide Height: 0"

COMPARTMENT L4

A full height compartment shall be located behind the rear wheels on the driver's side of the apparatus body. This compartment shall be designated as L4 within these specifications and any ensuing paperwork or drawings after contract execution.

The dimensions of the compartment shall be:

Height: 51"
Width: 27"
Depth: 14" Upper and 23" Lower
Intermediate Divide Height: 25"

L1 Components

COMPARTMENT STRUTS

Aluminum vertical strut channels shall be welded in the compartment. Two (2) struts shall be provided for any full depth portion and one (1) strut shall be provided for any shallow depth portion.

L2 Components

COMPARTMENT STRUTS

Aluminum vertical strut channels shall be welded in the compartment. Two (2) struts shall be provided for any full depth portion and one (1) strut shall be provided for any shallow depth portion.

L3 Components

COMPARTMENT STRUTS

Aluminum vertical strut channels shall be welded in the compartment. Two (2) struts shall be provided for any full depth portion and one (1) strut shall be provided for any shallow depth portion

L4 Components

COMPARTMENT STRUTS

Aluminum vertical strut channels shall be welded in the compartment. Two (2) struts shall be provided for any full depth portion and one (1) strut shall be provided for any shallow depth portion.

DRIVER'S SIDE REAR WHEEL WELL POSITION - WL1

A three (3) air bottle compartment shall be installed in the forward portion of the rear wheel well area, on the driver's side. The compartment shall be a triangle design. The compartment door, flange, and hinges shall be constructed of stainless steel material. The door shall have a rubber gasket to create a 100% seal to protect the interior of the compartment. The storage compartment shall be a molded component that is assembled to the door and flange. The door shall be painted primary body color.

DRIVER'S SIDE REAR WHEEL WELL POSITION - WL3

A single extinguisher/water can compartment shall be installed in the rearward portion of the rear wheel well area, on the driver's side. The compartment shall be large enough to hold an extinguisher/water can up to 9" in diameter, with sufficient space for the discharge tube. The compartment door, flange, and hinges shall be constructed of stainless steel material. The door shall have a rubber gasket to create a 100% seal to protect the interior of the compartment. The storage compartment shall be a molded component that is assembled to the door and flange. The door shall be painted primary body color.

OFFICER'S (RIGHT) SIDE BODY COMPARTMENTS

COMPARTMENT R1

A full height compartment shall be located ahead of the rear wheels on the officer's side of the apparatus body. This compartment shall be designated as R1 within these specifications and any ensuing paperwork or drawings after contract execution.

The dimensions of the compartment shall be:

Height: 62"

Width: 52"

Depth: 14" Upper and 0" Lower

Intermediate Divide Height: 30"

COMPARTMENT R2

A standard height compartment shall be located above the rear wheels on the officer's side of the apparatus body. This compartment shall be designated as R2 within these specifications and any ensuing paperwork or drawings after contract execution.

The dimensions of the compartment shall be:

Height: 28"
Width: 28"
Depth: 14" Upper and 14" Lower
Intermediate Divide Height: 0"

COMPARTMENT R3

A standard height compartment shall be located above the rear wheels on the officer's side of the apparatus body. This compartment shall be designated as R3 within these specifications and any ensuing paperwork or drawings after contract execution.

The dimensions of the compartment shall be:

Height: 20"
Width: 50"
Depth: 14" Upper and 14" Lower
Intermediate Divide Height: 0"

COMPARTMENT R4

A full height compartment shall be located behind the rear wheels on the officer's side of the apparatus body. This compartment shall be designated as R4 within these specifications and any ensuing paperwork or drawings after contract execution.

The dimensions of the compartment shall be:

Height: 51"
Width: 49"
Depth: 14" Upper and 23" Lower
Intermediate Divide Height: 25"

R1 Components

COMPARTMENT STRUTS

Aluminum vertical strut channels shall be welded in the compartment. Two (2) struts shall be provided for any full depth portion and one (1) strut shall be provided for any shallow depth portion.

R2 Components

COMPARTMENT STRUTS

Aluminum vertical strut channels shall be welded in the compartment. Two (2) struts shall be provided for any full depth portion and one (1) strut shall be provided for any shallow depth portion.

R3 Components

COMPARTMENT STRUTS

Aluminum vertical strut channels shall be welded in the compartment. Two (2) struts shall be provided for any full depth portion and one (1) strut shall be provided for any shallow depth portion.

R4 Components

COMPARTMENT STRUTS

Aluminum vertical strut channels shall be welded in the compartment. Two (2) struts shall be provided for any full depth portion and one (1) strut shall be provided for any shallow depth portion.

OFFICER'S SIDE REAR WHEEL WELL POSITION - WR1

A three (3) air bottle compartment shall be installed in the forward portion of the rear wheel well area, on the officer's side. The compartment shall be a triangle design. The compartment door, flange, and hinges shall be constructed of stainless steel material. The door shall have a rubber gasket to create a 100% seal to protect the interior of the compartment. The storage compartment shall be a molded component that is assembled to the door and flange. The door shall be painted primary body color.

OFFICER'S SIDE REAR WHEEL WELL POSITION - WR3

A single extinguisher/water can compartment shall be installed in the rearward portion of the rear wheel well area, on the officer's side. The compartment shall be large enough to hold an extinguisher/water can up to 9" in diameter, with sufficient space for the discharge tube. The compartment door, flange, and hinges shall be constructed of stainless steel material. The door shall have a rubber gasket to create a 100% seal to protect the interior of the compartment. The storage compartment shall be a molded component that is assembled to the door and flange. The door shall be painted primary body color.

REAR BODY COMPARTMENT

A compartment shall be located at the rear of the apparatus that extends into the apparatus torque box.

HOT-DIP GALVANIZED STEEL BODY MOUNT SUB FRAME

The main body mount sub frame shall be constructed from formed steel channel bolted and welded to the torque box. The sub frame shall be located at the front and rear of the body and in front and rear of the wheel well opening.

The compartment area behind the rear axle shall be supported by a drop frame fabricated of steel tube and angles. All drop frame structures shall be welded directly to the torque box to allow the body to be a completely separate structure from the chassis.

BODY RUB RAILS

Rub rails shall be installed beneath the compartment doors to protect the apparatus body from damage should the body be brushed or rubbed against another object. The rub rails shall be 2-1/2" x 1" , 3/16" aluminum channel. The rub rails shall be highly polished and then bright dip anodized.

The rub rails shall be installed on the body utilizing non-corrosive nylon spacers and secured with stainless steel bolts. The outside edge of the rub rails shall be even with the fenderettes and bolt-on steps to prevent snagging.

TWO REAR TOW EYES

Two (2) chrome plated tow eyes shall be installed at the rear of the apparatus above the rear step area. The tow eyes shall be bolted to a heavy-duty assembly that is welded to the torque box. The tow eyes shall have a 2-1/2" ID hole.

REAR WHEEL WELLS

The fenders shall be integral with the body sides and compartments with a seamless appearance. The fenders shall be fitted with bolt-in removable full circular inner liners in the wheel well area for ease of cleaning and maintenance. The liners shall match the material used to build the body. A sufficient clearance shall be provided in the wheel well to allow the use of tire chains when the apparatus fully loaded.

STAINLESS STEEL FENDERETTES

Two (2) stainless steel fenderettes shall be installed at the outboard edge of the rear wheel well area, one (1) on each side. The fenderettes shall be bolted to the apparatus body using nylon washers to space them slightly away from the body to reduce the build-up of road grime. The fenderettes shall be constructed of stainless steel that has been polished to a high-quality finish.

EXHAUST HEAT DEFLECTOR SHIELD

A 4" heat deflector shield shall be installed over the exhaust to aid in dissipating the heat to prevent exhaust heat from adversely affecting contents stored in the body.

LICENSE PLATE BRACKET

A license plate bracket shall be mounted on the rear of the apparatus. A clear LED light shall be incorporated into the bracket.

TRIMRITE STAINLESS STEEL FASTENERS

TrimRite stainless steel fasteners shall be provided for all exposed and unpainted fasteners throughout the body in locations such as overlays, pump panels, and other numerous hardware mounting locations. TrimRite stainless is a hardenable martensitic stainless steel that provides a high level of corrosion resistance, hardness up to Rockwell C 51, good cold formability and ease of heat treatment, all of which combine to provide an alloy which has been used for many applications. TrimRite stainless is tested to salt spray standard ASTM B117, which is a 200-hour salt spray test. The OEM shall use TrimRite stainless with an added blue patch which provides improved vibration resistance for the fasteners.

WALKWAYS AND OVERLAYS

All exterior surfaces designated by the manufacturer as stepping, standing, or walking areas shall be overlaid with 3003 H22 bright tread plate to provide a slip resistant surface, even when the surface is wet. All interior surfaces designated by the manufacturer as stepping, standing, or walking areas shall be slip resistant when the surface is dry. The degree of slip resistance shall be in accordance with NFPA, current edition.

Horizontal walkways shall have .080" aluminum tread plate overlays installed and vertical surfaces shall have .125" aluminum tread plate overlays. Overlays shall be installed that are totally insulated from the apparatus with nylon shoulder washers that extend into holes in the body. Stainless steel cap nuts shall be employed where bolt ends may damage equipment or cause injury. After the apparatus is painted and the overlays are reinstalled, they shall be additionally sealed at the edges with a caulking compound. The exterior top tread plate overlay shall be mounted flush with the outer edges of the apparatus body.

Any designated horizontal standing or walking surface higher than 48" from the ground and not guarded by a railing, or structure at least 12" high shall have a "safety yellow line" marking the outside perimeter of the designated standing or walking surface area. Yellow reflective SCENEdots shall be used to create the line along the outside edges of standing and walking surfaces. Steps and ladders shall not be required to have the yellow line.

STEPPING SURFACES

All steps shall have a surface area of at least 35 square inches and shall be able to withstand a load of at least 500 pounds. Steps shall be provided at any area that personnel may need to climb and shall be adequately lit.

TURNTABLE ACCESS LADDER

A "Smart" aluminum fold down access ladder shall be provided and installed at the left rear of the apparatus for access to the turntable, rearward of the side body compartments. The ladder rungs shall be constructed of a slip resistant stepping material.

The upper section shall be permanently secured to the body with a mechanical style hinge and fasteners that allow the ladder to extend down and out to the ground from the apparatus body. When deployed, the fold-down steps shall create a safe and comfortable climbing angle.

Two (2) gas cylinders shall be installed to assist in the deployment of the lower fold-down section. Access ladder rung illumination shall be provided during low light conditions.

If the step is not properly stowed and the transmission is placed into drive or reverse mode with the parking brake released, it shall activate the hazard light in the cab to alert the crew.

A grab handle shall be installed on top of the body at the rear of the apparatus.

A 6" Red / 6" White diamond grade reflective chevron shall be installed on each outboard side of the ladder. "THIS IS NOT A STEP" red reflective message shall be installed on the bottom of the last step in two directions so when the step is folded up you can read it from standing on top of the turn table or by standing on the ground.

FRONT TREAD PLATE OVERLAYS

A tread plate overlay shall be located on the front vertical areas of each side of the apparatus body. The overlays shall be located on the front of the body compartments.

FRONT BODY STEPS AND LIGHTING

Four (4) Innovative Controls folding steps (3004234-27-1-1-1-0) shall be located on the front of the driver's side body compartments. The folding steps shall have two large open slots to prevent the buildup of ice or mud and to provide a hand-hold when necessary. The steps shall have a surface area of at least 35 square inches and shall be able to withstand a load of 500 pounds.

Each step shall be a backlit polydomed Spartan Logo, a LED step light module and a bottom down-light module.

FRONT BODY STEPS AND LIGHTING

Three (4) Innovative Controls folding steps (3004234-27-1-1-1-0) shall be located on the front of the officer's side body compartments. The folding steps shall have two large open slots to prevent the buildup of ice or mud and to provide a hand-hold when necessary. The steps shall have a surface area of at least 35 square inches and shall be able to withstand a load of 500 pounds.

Each step shall be a backlit polydomed Spartan Logo, a LED step light module and a bottom down-light module.

Handrail, Body (Front), Top, Driver's Side, Hansen Backlit White, Red Reflective, Knurled Aluminum

A handrail shall be installed forward on the top of the body, on the driver's side.

Handrail, Body (Front), Top, Officer's Side, Hansen Backlit White, Red Reflective, Knurled Aluminum

A handrail shall be installed on the top officer's side front of the body.

GROUND LADDER STORAGE

The ground ladders shall be stored within the torque box and shall be removable from the rear of the apparatus. The ladders shall be fully enclosed so road dirt and debris cannot foul or damage the ladders. The ladders shall be stored in individual full-length slides so they can be removed individually.

The Little Giant ladder will be stored unfolded in the ladder rack. The

following ground ladders shall be supplied with the apparatus:

One (1) Duo-Safety, model 585-A, 10' aluminum folding ladder shall be provided.

One (1) Wing Enterprises, model 15187-882, 17' aluminum Little Giant Defender NFPA compliant ladder shall be provided.

Two (2) Duo-Safety, model 875-DR, 16' aluminum roof ladder with roof hooks on each end shall be provided.

One (1) Duo-Safety, model 1200-A, 28' aluminum two-section extension ladder shall be provided.

One (1) Duo-Safety, model 1225-A, 35' aluminum three-section extension ladder shall be provided.

PIKE POLE STORAGE

Six (6) aluminum tubes for the storage of pike poles shall be installed inside the torque box. The provisional tubes shall be for the dealer supplied 6', 8', 12' standard pike poles and 6', 8' and 10' New York style pike poles, (1) each.

PIKE POLE STORAGE

Two (2) aluminum trays for the storage of pike poles shall be installed inside the upper portion of the torque box.

The dealer supplied poles will be 4' D-handle.

PUMP COMPARTMENT

The complete apparatus pump compartment shall be constructed of a combination of structural tubing and formed sheet metal. The same materials used in the body shall be utilized in the construction of the pump compartment. The structure shall be welded utilizing the same A.W.S. Certified welding procedure as used on the structural body module. These processes shall ensure the quality of structural stability of the pump compartment module.

The pump compartment module shall be separated from the apparatus body with a gap. This gap is necessary to accommodate the flexing of the chassis frame rails that are encountered while the vehicle is in transit so that harmful torsional forces are not transmitted into the structural framework.

VIBRA-TORQ PUMP MODULE MOUNTING SYSTEM

The entire pump module assembly shall be mounted so that it "floats" above the chassis frame rails exclusively with Vibra-Torq torsion isolator assemblies to reduce the vibration and stress providing an extremely durable pump module mounting system.

The pump module substructure shall be mounted above the frame to allow independent flexing to occur between the body and the chassis. Each assembly shall be mounted to the chassis frame rails with steel, gusseted mounting brackets. Each bracket shall be powder coated for corrosion resistance. Each pump compartment mount bracket shall be mounted to the side chassis frame flange.

Each assembly shall have a two-part rubber vibration isolator. The isolator shall be of a specific durometer to carry the necessary loads of the pump module, apparatus body, equipment, tank, water, and hose. The quantity of mounts utilized shall correspond directly to the anticipated weight being supported. Certain assemblies shall also incorporate a torsion spring. Helical coil springs shall be incorporated into specific mounts in tandem with the rubber isolators to minimize the stress absorbed by the body caused from chassis frame rail flexing.

There shall be no welding to the chassis frame rail sides, web or flanges, or drilling of holes in the top or bottom frame flanges between axles. All pump module to chassis connections shall be bolted so that in the event of an accident, the body shall be easily removable from the truck chassis for repair or replacement.

Because of the constant vibration and twisting action that occurs in chassis frame rails and suspension, the torsion mounting system is required to minimize the possibility of premature pump module structural failures. The Vibra-Torq mounting system shall have a lifetime warranty.

PUMP COMPARTMENT LIGHTS

Two (2) On-Scene Access LED lights shall be installed in the pump compartment. The lights shall be rated at 100,000 hours of service. The lights shall be waterproof and magnesium chloride resistant. The lights shall be enclosed in tough 5/8" Lexan tube. There will be a work light switch installed on the pump panel to activate the lights.

DRIVER'S SIDE RUNNING BOARD

A running board constructed of anti-slip tread plate, shall be installed on the driver's side of the pump module. The stepping area shall be as large as possible, overlapping the perimeter of the running board structure.

OFFICER'S SIDE RUNNING BOARD

A running board, constructed of anti-slip tread plate, shall be installed on the officer's side of the pump module. A floating storage well compartment shall be recessed in the running board. The stepping areas shall be as large as possible, overlapping the perimeter of the running board structure.

Two (2) PAC, model K5006, straps shall be provided and installed over the top of the compartment.

PULL-OUT PLATFORM

One (1) Innovative Industries pull-out platform shall be located on the driver's side of the pump module. The top surface of the platform shall be constructed of aluminum serrated bar grating for ease of maintenance and to provide a slip resistant surface for the operator. The platform shall lock in both the retracted and the extended position. The pull-out platform shall be capable of supporting a maximum of 500 pounds and shall be wired to the door ajar circuit.

The pull-out platform's roller assembly shall have a powder coat finish for added corrosion protection.

DUNNAGE COMPARTMENT

A dunnage compartment shall be located above the pump module. The dunnage compartment floor shall be constructed of tread plate.

OFFICER'S SIDE DUNNAGE ACCESS PANEL

A painted aluminum access panel shall be above the officer's side pump panel to allow access to the dunnage compartment. The vertically hinged panel shall be of the single pan design and shall be positively latched in the closed position utilizing (2) two compression latches. The door shall have a chrome suitcase handle installed between the compression latches. A gas strut shall be provided on the door. A stainless steel sill protector shall be installed on the bottom of the door opening to protect the paint from chipping and scratching. The door shall be wired into the door-ajar warning light circuit.

CONTROL PANEL

The driver's side of the pump enclosure shall be divided into two sections. The lower section shall contain all valve controls, primer controls, discharge relief valve controls (pilot valve), and other mechanical controls. This surface shall be referred to as the "control panel".

All valve controls shall be the self-locking type, activated by either direct control or with a direct linkage utilizing friction locking bell cranks and universal ball swivels. The primary valve handles shall have color coded tags installed in a recessed area to clearly denote the purpose of each control.

INSTRUMENT PANEL

The surface up above the control panel shall contain all instruments, gauges, test fittings, and optional controls. This surface shall be referred to as the "instrument panel".

The instrument panel shall be independent and hinged and latched. All instruments, gauges, and other equipment shall be installed with sufficient slack in any cabling, tubing, or plumbing to allow the panel to swivel to the fully open position.

The instrument and gauge panel shall be vertically hinged "swing out" to provide access for service.

OFFICER'S SIDE PUMP PANEL

A single panel shall be installed on the officer's side of the pump enclosure. This shall be the area where any officer's side discharges, inlets, steamers, and other pump-associated equipment are located. This panel shall be easily removed and held in place with quick release push latches. It shall be fully removable for pump and plumbing access without the need to use hand tools. Any electrical equipment installed shall be equipped with connectors so they may be easily separated when the below described front access panel is removed.

PANEL SURFACES

The control panel, instrument panel, and officer's side pump panel shall be coated with black Bedliner Coating for maximum resistance to abrasion and to minimize glare. The material shall be capable of withstanding the effects of extreme temperatures and weather.

GARNISH RING BEZEL ASSEMBLIES POLISH STAINLESS STEEL

Polish Stainless steel intake and discharge garnish rings shall be installed on the apparatus.

VERBIAGE TAG BEZEL ASSEMBLIES (Spartan Style)

Innovative Controls (Spartan Style) verbiage tag and bezels shall be installed. The bezel assemblies will be used to identify apparatus components.

SAFETY MESSAGE BEZEL ASSEMBLIES

Innovative Controls safety message and bezels shall be installed. The assemblies will be used to identify, instruct, or warn the operators.

The Innovative Controls verbiage and safety message tags shall be designed and manufactured to withstand the specified apparatus service environment and shall be backed by a warranty equal to that of the exterior paint and finish. The specified assemblies shall feature a chrome-plated panel-mount bezel with durable UV resistant polycarbonate inserts. These UV resistant polycarbonate graphic inserts shall be sub-surface screen printed to eliminate the possibility of wear and protect the inks from fading. All insert labels shall be backed with 3M permanent adhesive (200MP), which meets UL969 and is in accordance with NFPA, current edition.

PUMP PANEL LIGHTING

The pump operator's control panel and the officer's side pump panel shall each be illuminated by On-Scene LED Access lighting. The pump panel lights shall become energized upon setting the park brake so the gauge information provided may be consulted. A stainless steel shield shall be installed over the pump panel lights to further protect them from the elements and to act as a reflector for additional illumination.

PUMP PANEL LIGHT SWITCH

An on/off switch shall be located on the operator pump panel to control the pump panel lights.

MIDSHIP MOUNT FIRE PUMP

The pump shall be a Waterous CSU 2000 U.S. GPM fire pump. The pump shall be a single stage centrifugal class "A" rated fire pump, designed specifically for the fire service.

The pump body shall be cast as two (2) horizontally split pieces. The body shall be made of high tensile, close-grained gray iron with a minimum tensile strength of 40,000 PSI.

FLAME PLATED IMPELLER HUBS

The pump impellers shall be bronze, specifically designed for the fire service and accurately balanced for vibration free running. The stripping edges shall be located on opposite sides of the impellers to reduce shaft deflection.

The impeller shaft shall be stainless steel, accurately ground to size and supported at each end by oil or grease lubricated anti-friction ball bearings for rigid, precise support. The bearings used on the impeller shaft shall be automotive type bearings, easily cross-referenced and readily available at normal parts or bearing stores.

The impeller hubs shall be flame plated with tungsten carbide to hardness approximately twice that of tool steel to assure maximum pump life and efficiency. During the flame plating process, the base metal shall not be allowed to exceed a temperature of 300 degrees Fahrenheit to prevent altering the metallurgical properties of the impeller material.

IMPELLER WEAR RINGS

The pump shall be equipped with replaceable bronze wear rings for increased pump life and minimum maintenance cost. The wear rings shall be designed to fit into a groove in the face of the impeller hubs forming a labyrinth that, as the clearance increases with age, directs water from the discharge side in several directions eventually exiting outward, away from the eye of the impeller hub.

LUBRICATION SYSTEM

An internal lubrication system shall deliver lubricant directly to the drive chain. This unique design shall eliminate the need for an external lubrication pump and auxiliary cooling. Oil shall be supplied with the lubrication system.

PUMP TRANSMISSION

The pump shall have a Waterous model C20 series transmission. The housing of the transmission shall be constructed of high strength, three-piece, horizontally split aluminum. The drive line shafts shall be made from alloy steel forgings, hardened and ground to a size 2.350 inch 46 tooth involute spline. The drive and driven sprockets shall be made of steel and shall be hardened and have ground bores. The drive chain shall be a Morse HV high strength involute form chain. Bearings shall be deep-groove, anti-friction ball bearings and shall give support and proper alignment with the impeller shaft assembly. Bearings shall be oil splash lubricated, completely separated from the water being pumped, and protected by a V-ring and oil seal. An internal lubrication system shall deliver lubricant directly to the drive chain. This unique design eliminates the need for an external lubrication pump and auxiliary cooling. The pump and transmission shall be easily separable. A two-piece shaft shall be splined allowing for individual repair of either the pump or transmission, to keep down time to a minimum. All drive line components shall have a torque rating equal to or greater than the final net engine torque.

MECHANICAL SEALS

The pump shall be equipped with self-adjusting, maintenance free mechanical shaft seals that shall not require manual adjustment. These seals shall be designed in a manner such that they shall remain functional enough to permit continued use of the pump in the unlikely event of a seal failure.

ANODES

Four (4) Waterous Magnesium anodes shall be provided with the fire pump. The anodes shall aid in preventing galvanic corrosion within the water pump and be easily replaceable. The anodes shall be installed as follows:

Two (2) on the intake side of the pump

Two (2) in the discharge manifold of the fire pump.

The pump shall be rated at 1750 gallons per minute.

FIRE PUMP MOUNTING

The fire pump shall be mounted within a separate body module that is not directly connected to the apparatus body.

The pump shall be frame mounted as per pump manufacture recommended guidelines; therefore minimizing the likelihood of the pump casing cracking should the apparatus be involved in a collision.

The pump module shall be mounted to the frame in a minimum of four (4) locations and shall be reinforced appropriately in order to carry the expected load for the life of the apparatus.

PUMP SHIFT

The pump shift shall be supplied and installed by the chassis manufacturer.

The pump system shift indicator lights in the chassis cab shall be supplied and installed by the chassis manufacturer.

The pump system shift indicator lights on the operator's panel shall be incorporated with the pump pressure governor.

PRESSURE GOVERNOR

A Fire Research Pump Boss Max pressure governor and control module kit shall be installed. The system 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 7-1/2" high by 3-5/8" wide. The control knob shall be 2" in diameter with no mechanical stops, have a serrated grip, and a red idle push button in the center. It shall not extend more than 2" from the front of the control module. The control LCD shall be 3.5" in size with a minimum brightness of 1000 nits and optically bonded to 3mm Borofloat Glass. Inputs for monitored engine information shall be a J1939 data bus or independent sensors. Outputs for engine control shall be on the J1939 data bus or engine specific signal wiring. Inputs to the control module from the pump discharge and intake pressure sensors shall be electrical.

The following continuous displays shall be provided:

Engine RPM; shown on LCD screen

Check engine and stop engine warning; shown on LCD screen
Engine Oil pressure; shown on LCD screen
Engine coolant temperature; shown on LCD screen
Transmission Temperature; shown on LCD screen
Battery voltage; shown on LCD screen
Pressure and RPM operating mode LEDs Pressure /
RPM setting; shown on LCD screen Throttle ready /
Ok to Pump LEDs

The screen (LCD) 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. LCD Screen and LED's 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. The kit 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 module. A USB port shall be located at the rear of the control module to upload future firmware enhancements.

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 and Ok to Pump 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 low water and no water conditions with an automatic programmed response and a push button to return the engine to idle.

The pressure governor control module shall be programmed at installation for a specific engine.

INTAKE RELIEF VALVE

A Task Force Tips, model #A1850, pressure relief valve shall be installed on the suction side of the pump. The valve shall be factory preset and shall have an easy to read adjustment range from 90 to 300 PSI with easy to read 90, 125, 150, 200, 250, 300 PSI

settings and an "OFF" position. Pressure adjustment can be made utilizing a 1/4" hex key, 9/16" socket or 14mm socket. For corrosion resistance the cast aluminum valve shall be hard coat anodized with a powder coat interior and exterior finish. The valve shall have a 2-1/2" male Victaulic discharge outlet. The valve shall be in accordance with NFPA, current edition. requirements for pump inlet relief valves. The unit shall be covered by a five-year warranty.

TRIDENT PRIMING PUMP

The priming pump shall be a Trident Emergency Products three-barrel, compressed air powered, high efficiency, multi-stage, venturi based AirPrime System. All wetted metallic parts of the priming system are to be of brass and stainless steel construction. A pressure protection valve shall be installed with the priming pump. A single panel mounted control shall activate the priming pump and open the priming valve to the pump.

MASTER DRAIN VALVE

A Trident manifold drain valve assembly shall be supplied. This drain shall provide the capability to drain the entire pump by turning a single control. The valve assembly shall consist of a stainless steel plate and shaft in a bronze body with multiple ports. The drain valve control shall be mounted on the driver's side pump panel and labeled "Master Drain".

WATEROUS OVERHEAT PROTECTION MANAGER WITH INDICATOR LIGHTS AND BUZZER

A Waterous Overheat Protection Manager (OPM) shall be installed on the pump. The relief valve shall automatically relieve water from the pump when the temperature of the pump water exceeds 140°F. In addition, a warning light on the pump panel shall be triggered by a thermal switch when the water in the pump reaches 180°F. The warning light and a buzzer act as additional protection devices if the temperature inside the pump keeps rising although the valve is open. The valve shall automatically reset after activation.

PUMP PRIMED BLACK BY PUMP MANUFACTURER

The pump shall be primed black by the pump manufacturer.

The main intake(s) shall be unpainted and any auxiliary intake(s) shall be the same color as they arrived from the valve manufacturer.

PUMP MANUALS

Two (2) Pump Operation and Maintenance manuals shall be provided in digital format with the apparatus.

PUMP COOLING SYSTEM

A pump cooling system shall be provided on the apparatus. The cooling system shall keep the pump cool during long periods of pumping when water is not being discharged. The cooling system shall also be set up in a way that the cooling system lines can be easily drained through the master pump drain.

The cooling system lines shall consist of high-temperature hose. The pump cooling lines shall be installed with one (1) line going from the discharge side of the water pump through a 3/4 in-line quarter-turn ball valve assembly up to the water tank. At the water tank, the pump cooling line shall be plumbed into a 3/4" check valve on the "Tank Fill" valve. The check valve shall prevent tank water from back flowing into the pump when the cooling system is not in use. A return line from the water tank shall be plumbed into the water pump.

The pump cooling system valve shall be controlled on operators panel, and shall be clearly labeled, "Pump Cooler".

ENGINEERING FOR FUTURE FOAM SYSTEM

The stainless manifold on the pump shall be engineered for the future installation of a Foam Pro 1600 single foam system. In addition to the plumbing, the pump operators control panel shall have open space provided for installation of future foam controls.

PLUMBING MANIFOLD

The plumbing manifold shall consist of the inlet side manifold and the discharge side manifold. Galvanized Victaulic couplings shall be used wherever possible for ease of maintenance and superior corrosion protection.

The inlet side of the plumbing manifold shall utilize schedule 10, 304-grade stainless steel tubing and preformed elbows for inlets that are larger than 3". Side auxiliary inlets that are 3" or smaller shall utilize schedule 10, 304-grade stainless steel threaded tubing and preformed elbows. The inlet manifold shall thread into the pump auxiliary inlet ports and each inlet valve shall thread onto the inlet manifold.

The discharge side of the plumbing manifold shall utilize schedule 10, 304-grade stainless steel tubing and preformed elbows to ensure the quality of the manifold where welds are required. The discharge manifold shall connect to the pump discharge ports using 1/2" stainless steel flanges that shall be machined to seat an O-ring to ensure a leak proof seal. Each discharge shall derive from a port on the manifold assembly connected to a discharge valve with 1/2" 304-grade stainless steel flanges. Discharges that terminate in a location other than the pump module (i.e. rear discharges) that do not require welding shall utilize a combination of high-pressure flex hose and schedule 10, 304-grade stainless steel tubing to allow flexibility between the body and the pump module.

A 3/4" quarter turn drain valve shall be included. A chrome plated rectangular handle shall be provided on the drain valve to facilitate use with a gloved hand. The drain valve shall be located just above the running board and below the pump panel to reduce clutter in the pump panel area. The drain valve shall be connected to the valve with a flexible hose that is routed in such a manner as to assure complete drainage to below the apparatus. A matching color coded bezel shall be included.

INNOVATIVE CONTROLS DISCHARGE GAUGES - 2-1/2" - 0-400 PSI

The discharge gauges on the apparatus shall be 2-1/2" (63mm) diameter Innovative Controls TC Series (Temperature Compensation) pressure gauges. The gauges shall have a glass-filled nylon case, a clear scratch-resistant lens, and a highly-polished stainless steel bezel. The gauge shall be fully-filled with a synthetic mixture to dampen shock and vibration, lubricate the internal mechanisms, prevent lens condensation, and ensure proper operation from -40° F to +160° F.

The gauges shall meet or exceed ASME B40.100 Grade B requirements with an accuracy of +/- 1.5% full scale and include an internal thermal expansion bladder that allows the gauge fill to expand in high temperature environments. The gauges shall also include a KEM-X Socket Saver diaphragm in the stem to eliminate freeze-up and contain a low temperature instrument oil that fills and protects the socket and bourdon tube.

Each discharge gauge shall include a line fitting and be installed into a proprietary chrome-plated Smeal decorative bezel that features an area for the installation of a discharge color-coding label.

The gauges shall display a range from 0 to 400 PSI with black markings on a white dial.

MASTER PRESSURE GAUGES

The master gauges shall be installed on the pump panel no more than 6 inches apart.

The master intake and master discharge gauges shall be 4" (100mm) diameter Innovative Controls TC series (Temperature Compensation) pressure gauges. Each gauge shall have a glass-filled nylon case, a scratch-resistant lens, and a highly-polished stainless steel bezel. The gauge shall be fully-filled with a synthetic mixture to dampen shock and vibration, lubricate the internal mechanisms, prevent lens condensation and ensure proper operations from -40° F to +60° F.

Each gauge shall meet or exceed ASME B40.100 Grade B requirements with an accuracy of +/- 1.5% full scale and include an internal thermal expansion bladder that allows the gauge fill to expand in high temperature environments. The gauges shall also include a KEM-X Socket Saver diaphragm in the stem to eliminate freeze-up and contain a low temperature instrument oil that fills and protects the socket and bourdon tube.

The gauge on the left shall be the master pump intake gauge and display a range from

-30 to 400 PSI. The gauge on the right shall be the master pump discharge gauge and display a range from 0 to 400 PSI.

Test Ports, Pressure/Vacuum, Inn. Cntrls, Spartan Logo, Operators Panel

The test port manifold shall be from Innovative Controls and feature solid one-piece cast brass manifold construction located on the pump operator's panel. Removable chrome plated plugs shall be in two test ports, which shall protrude through the surface of the apparatus pump panel or subpanel for easy removal during manual pressure testing.

Plumbing ports 1-4 shall be behind the panel after installation. Each of these four ports (two on vacuum side and two on pressure side) shall have SAE brass fittings or plugs and be plumbed as needed into the vacuum and pressure lines and gauges.

Pressure ports 5 and 6 shall accept 1/4" NH fittings, plugs, or pressure transducers for real-time vacuum and/or pressure readings from one or both sides of the manifold. Port 5 shall be on the vacuum side and Port 6 shall be on the pressure side of the manifold. The location of these ports shall allow the manifold to totally drain if desired.

The test port manifold may be assembled to a decorative chrome-plated die-cast zinc bezel. This bezel shall reside on the outside of the panel after installation and hold a sub-surface printed polycarbonate overlay that will label each of the two exposed test ports – one shall be labeled 'Vacuum' or 'VAC' and the other 'Pressure' or 'PRES'. This label shall cover the mounting screws and include a Spartan logo.

HARDWARE BRAND

The non-Storz discharge and intake fittings provided on this apparatus shall be South Park Corp. Brand. The adapter/cap/plug fittings shall be manufactured from high-quality brass that shall be polished to remove manufacturing irregularities with a chrome finish applied to the polished surface.

The Storz discharge and intake fittings provided on this apparatus shall be Task Force Tips Brand. For corrosion resistance, the adapter shall be constructed of hard coat anodized aluminum alloy and include a polymer bearing ring for prevention of galvanic corrosion.

The auxiliary intake(s) shall terminate with NH swivels, and the discharges shall terminate with male NH threads.

DISCHARGE, PRE-CONNECT, AND INTAKE DRAINS (SPARTAN)

An Innovative Controls 3/4" quarter turn drain, shall be included on each discharge, gated intake, and steamer valve (if applicable). A side stem, long stroke chrome plated lift handle shall be provided on the drain valve to facilitate use with a gloved hand. The drain valve shall have a verbiage tag that angles upward so that it can easily be seen and read by the operator before opening. The drain valve shall be located just above the running board and below the pump panel to reduce clutter in the pump panel area. The drain valve shall be connected to the valve with a flexible hose that is routed in such a manner as to assure complete drainage to below the apparatus. A matching color coded bezel shall be included.

AUTOMATIC DRAINS

A Class 1 automatic drain shall be installed on the deluge valve (if applicable). The drains shall also be located in low laying areas (i.e., front discharge) The Drains will open whenever the pressure in the line drops below 6 PSI.

Water Line Fittings, Compression Fittings

All poly lines leading to the pressure gauges, drains, etc. in relation to the water pump are to utilize compression fittings.

2" TANK FILL

A 2" tank fill shall be plumbed from the pump to the tank. Installation shall be completed with 2" rubber hose and stainless steel hose couplings.

An Akron Brass, model 8820, 2" Swing-Out valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a self-locking ball feature using an automatic friction lock design and specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts, and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall be actuated by a manual actuator installed on the valve. The manual actuator shall be controlled by a Spartan Style Innovative Controls push/pull T-handle.

The valve shall carry a ten (10) year warranty by the valve manufacturer.

3" TANK-TO-PUMP

A 3" tank-to-pump shall be plumbed with a flexible hose from the tank to the suction side of the pump. An Akron Brass, model 8830, 3" Swing-Out valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a self-locking ball feature using an automatic friction lock design and specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall also include a necessary B3-SH pump flange adapter, which shall be specifically used for the tank-to-pump line to properly adjust the plumbing based on the pitch of the pump. The valve shall carry a ten (10) year warranty by the valve manufacturer.

A check valve shall be between the pump suction and the booster tank valve. The check valve shall eliminate back flow into the water tank when the pump is connected to a pressurized source.

The valve shall be actuated by a manual actuator. The manual actuator shall be controlled by a Spartan Style Innovative Controls push/pull T-handle.

6" DRIVER SIDE MAIN INTAKE

A 6" main intake shall be located on the driver's side of the pump module. The suction fittings shall include a removable die-cast screen to provide cathodic protection for the pump thus reducing corrosion. A short steamer barrel shall be installed to accommodate an intake valve without exceeding the legal overall body width. The intake shall terminate male NH threads.

One (1) 6" NH thread long handle chrome plated vented steamer cap shall be provided.

2-1/2" DRIVER'S SIDE AUXILIARY INTAKE

A 2-1/2" gated auxiliary intake with 2-1/2" plumbing shall be provided on the driver's side of the pump module. The auxiliary intake shall be fully recessed behind the panel in order to keep the valve protected from the elements.

Valve, 2-1/2", Akron, Manual, 8825, Stainless Ball, TS Handle

An Akron Brass, model 8825, 2-1/2" Swing-Out valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall be manufactured and assembled in the United States. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by an Akron Brass, model TS manual actuator installed directly on the valve. The handle shall allow the valve to be controlled directly at the valve.

Plug, NH, 2-1/2", South Park, HPC3008AC

One (1) 2-1/2" NH thread rocker lug chrome plated vented plug, complete with cable or chain, shall be provided.

6" OFFICER SIDE MAIN INTAKE

A 6" main intake shall be located on the officer's side of the pump module. The suction fittings shall include a removable die-cast screen to provide cathodic protection for the pump thus reducing corrosion. A short steamer barrel shall be installed to accommodate an intake valve without exceeding the legal overall body width. The intake shall terminate male NH threads.

Cap, 6" NH, Vented Chrome, South Park, LHC26P14AC

One (1) 6" NH thread long handle chrome plated vented steamer cap shall be provided.

2-1/2" DRIVER'S SIDE DISCHARGE

A 2-1/2" discharge with 2-1/2" plumbing shall be located on the driver's side of the pump compartment. The discharge shall terminate with male NH thread.

Valve, 2-1/2", Akron, Manual, 8625, Stainless Ball, Innovative Controls (Spartan Style) Push Pull Controller (Rack and Sector)

An Akron Brass model 8625 2-1/2" Swing-Out valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall be manufactured and assembled in the United States. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by an Akron Brass rack and sector actuator installed on the valve. The manual actuator shall be controlled by a Spartan style Innovative Controls push/pull T- handle.

Pressure Gauge, Inn. Cntrls, 2-1/2" TC Series, Liquid Filled - PSI 0-400 (Spartan Logo)

The discharge shall have a 2-1/2" (63mm) glass filled nylon 66 case TC series gauge with a Spartan bezel and a display range from 0 to 400 PSI. The gauge shall have a black dial graphic and pointer.

Elbow (30 Deg.) 2-1/2" FNH x 2-1/2" MNH (SE393010AC) - NH Cap (HCC2808AC), Chrome, South Park

One (1) 2-1/2" female NH thread swivel rocker lug x 2-1/2" male NH thread 30 degree chrome plated elbow adapter shall be provided.

One (1) 2-1/2" NH thread rocker lug chrome plated vented cap, complete with cable or chain, shall be provided.

2-1/2" DRIVER'S SIDE DISCHARGE

A 2-1/2" discharge with 2-1/2" plumbing shall be located on the driver's side of the pump compartment. The discharge shall terminate with male NH thread.

Valve, 2-1/2", Akron, Manual, 8625, Stainless Ball, Innovative Controls (Spartan Style)
Push Pull Controller (Rack and Sector)

An Akron Brass model 8625 2-1/2" Swing-Out valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall be manufactured and assembled in the United States. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by an Akron Brass rack and sector actuator installed on the valve. The manual actuator shall be controlled by a Spartan style Innovative Controls push/pull T- handle.

Pressure Gauge, Inn. Cntrls, 2-1/2" TC Series, Liquid Filled - PSI 0-400 (Spartan Logo)

The discharge shall have a 2-1/2" (63mm) glass filled nylon 66 case TC series gauge with a Spartan bezel and a display range from 0 to 400 PSI. The gauge shall have a black dial graphic and pointer.

Elbow (30 Deg.) 2-1/2" FNH x 2-1/2" MNH (SE393010AC) - NH Cap (HCC2808AC),
Chrome, South Park

One (1) 2-1/2" female NH thread swivel rocker lug x 2-1/2" male NH thread 30 degree chrome plated elbow adapter shall be provided.

One (1) 2-1/2" NH thread rocker lug chrome plated vented cap, complete with cable or chain, shall be provided.

2-1/2" OFFICER'S SIDE DISCHARGE

A 2-1/2" discharge with 2-1/2" plumbing shall be located on the officer's side of the pump compartment. The discharge shall terminate with male NH thread.

Valve, 2-1/2", Akron, Manual, 8825, Stainless Ball, Innovative Controls (Spartan Style)
Push Pull Controller (Operators Panel)

An Akron Brass, model 8825, 2-1/2" Swing-Out valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall be manufactured and assembled in the United States. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by a manual actuator installed on the valve. The manual actuator shall be controlled by a Spartan style Innovative Controls push/pull T- handle at the pump operator's panel.

Pressure Gauge, Inn. Cntrls, 2-1/2" TC Series, Liquid Filled - PSI 0-400 (Spartan Logo)

The discharge shall have a 2-1/2" (63mm) glass filled nylon 66 case TC series gauge with a Spartan bezel and a display range from 0 to 400 PSI. The gauge shall have a black dial graphic and pointer.

Elbow (30 Deg.) 2-1/2" FNH x 2-1/2" MNH (SE393010AC) - NH Cap (HCC2808AC), Chrome, South Park

One (1) 2-1/2" female NH thread swivel rocker lug x 2-1/2" male NH thread 30 degree chrome plated elbow adapter shall be provided.

One (1) 2-1/2" NH thread rocker lug chrome plated vented cap, complete with cable or chain, shall be provided.

4" OFFICER'S SIDE DISCHARGE

A 4" large diameter discharge, with 4" plumbing, shall be located on the officer's side of the pump compartment. The discharge shall terminate with male NH thread.

Valve, 3", Akron, Manual, 8830, Stainless Ball, Innovative Controls Push Pull Controller (Operators Panel)

An Akron Brass, model 8830, 3" Swing-Out valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall be manufactured and assembled in the United States. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by a manual actuator installed on the valve. The manual actuator shall be controlled by an Innovative Controls push/pull T- handle at the pump operator's panel.

Pressure Gauge, Inn. Cntrls, 2-1/2" TC Series, Liquid Filled - PSI 0-400 (Spartan Logo)

The discharge shall have a 2-1/2" (63mm) glass filled nylon 66 case TC series gauge with a Spartan bezel and a display range from 0 to 400 PSI. The gauge shall have a black dial graphic and pointer.

Elbow (30 Deg.) 4" FNH x 4" MNH (SE393040AC) - NH Cap (HCC2814AC), Chrome, South Park

One (1) 4" female NH thread swivel rocker lug x 4" male NH thread 30 degree chrome plated elbow adapter shall be provided.

One (1) 4" NH thread rocker lug chrome plated vented cap, complete with cable or chain, shall be provided.

2-1/2" FRONT BUMPER DISCHARGE

A 2-1/2" discharge shall be located above the gravel shield on the officer's side of the front bumper. The discharge shall be plumbed with 2-1/2" chassis installed stainless steel plumbing and OEM installed stainless steel plumbing and high-pressure flex hose with stainless steel couplings. The discharge shall terminate with male NH thread.

The discharge shall have Class1 automatic drains installed in the low routed areas below the manual drain. The automatic drains shall open whenever the pressure in the line drops below 6 PSI.

Foam Capable Discharge

The discharge shall be foam capable.

Valve, 2-1/2", Akron, Manual, 8825, Stainless Ball, Innovative Controls (Spartan Style) Push Pull Controller

An Akron Brass, model 8825, 2-1/2" Swing-Out valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall be manufactured and assembled in the United States. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by a manual actuator installed on the valve. The manual actuator shall be controlled by a Spartan Style Innovative Controls push/pull T-handle.

Pressure Gauge, Inn. Cntrls, 2-1/2" TC Series, Liquid Filled - PSI 0-400 (Spartan Logo)

The discharge shall have a 2-1/2" (63mm) glass filled nylon 66 case TC series gauge with a Spartan bezel and a display range from 0 to 400 PSI. The gauge shall have a black dial graphic and pointer.

Preconnect Discharge

The discharge shall be designated as a pre-connect so no cap and chain shall be required.

CROSSLAY CONFIGURATION

Two (2) 1-1/2" and one (1) 2-1/2" crosslay pre-connects shall be located above the pump panel. High-pressure flex hose with stainless steel couplings shall be used in the plumbing.

A 90 degree swivel elbow shall be utilized to keep the hose from kinking when pulled from either side of the apparatus. The swivel for each crosslay shall be located outboard for ease of making connections while changing hose.

The pre-connect hose beds shall be sized to accommodate the following hose load:

Pre-connect Hose Bed Housing Coating, Abraded Finish

The interior of the pre-connect hose bed shall have a maintenance free abraded finish.

FLOORING

The floor of the pre-connect area shall be covered with Dura-Dek fiber reinforced material. The Dura-Dek shall have "T" beams in parallel connected with cross slats that are first mechanically bonded and then epoxied. The "T" sections shall be spaced 3/4" apart to allow for drainage and ventilation.

CROSSLAY TRIM

Brushed stainless steel trim shall be installed at the openings on the bottom and on each side of the crosslay hose bed area. The trim shall reduce the chaffing of the hose jacket on the edges of the bay area.

DIVIDERS

Two (2) dividers shall be in the crosslay area. Each divider shall be fabricated of 3/16" aluminum with a handheld cutout and shall be mounted in a channel on each end for adjustability. The dividers shall have a maintenance free abraded finish.

CROSSLAY COVER

A bi-fold aluminum non-slip tread plate cover shall be installed on the crosslay hose bed. The cover shall not interfere with hose loading when in the open position. When in the open position the cover shall remain open due to automatically engaging mechanisms that require no type of latch operation to engage or release. The cover shall be provided with two full length stainless steel piano style hinges that shall attach the cover to the body and allow it to bi-fold. The cover shall be light yet rigid. Opening the cover may be performed by one person on one side of the apparatus. The cover shall be rigid enough to support weight without deformation.

Crosslay Hose Bed Lights, (2) LED, On Scene AccessTwo (2) On Scene, Access, crosslay hose bed lights shall be provided to illuminate of the crosslay hose bed area in accordance with NFPA, current edition. The lights shall be a 9" tube light with a chrome housing. The lighting circuit shall be activated when the parking brake is engaged.

1-1/2" PRE-CONNECT

A 1-1/2" pre-connect with 2" plumbing shall be provided. The pre-connect shall terminate out a swivel male NST threads.

Crosslay Load, 250' of 1-3/4" Hose, Single Stack

The 1-1/2" crosslay pre-connect shall have a capacity of 250' of 1-3/4" double jacket fire hose stored in a single stack.

All hose load calculations are estimated using Snap-Tite standard hose.

Foam Capable Discharge

The discharge shall be foam capable.

Valve, 2", Akron, Manual, 8820, Stainless Ball, Innovative Controls (Spartan Style) Push Pull Controller

An Akron Brass, model 8820, 2" Swing-Out valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall be manufactured and assembled in the United States. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by a manual actuator installed on the valve. The manual actuator shall be controlled by a Spartan style Innovative Controls push/pull T- handle.

Pressure Gauge, Inn. Cntrls, 2-1/2" TC Series, Liquid Filled - PSI 0-400 (Spartan Logo)

The discharge shall have a 2-1/2" (63mm) glass filled nylon 66 case TC series gauge with a Spartan bezel and a display range from 0 to 400 PSI. The gauge shall have a black dial graphic and pointer. **Option ID:910526 QTY:1**
Preconnect Discharge

The discharge shall be designated as a pre-connect so no cap and chain shall be required.

1-1/2" PRE-CONNECT

A 1-1/2" pre-connect with 2" plumbing shall be provided. The pre-connect shall terminate out a swivel male NST threads.

Crosslay Load, 250' of 1-3/4" Hose, Single Stack

The 1-1/2" crosslay pre-connect shall have a capacity of 250' of 1-3/4" double jacket fire hose stored in a single stack.

All hose load calculations are estimated using Snap-Tite standard hose.

Foam Capable Discharge

The discharge shall be foam capable.

Valve, 2", Akron, Manual, 8820, Stainless Ball, Innovative Controls (Spartan Style) Push Pull Controller

An Akron Brass, model 8820, 2" Swing-Out valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall be manufactured and assembled in the United States. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by a manual actuator installed on the valve. The manual actuator shall be controlled by a Spartan style Innovative Controls push/pull T- handle.

Pressure Gauge, Inn. Cntrls, 2-1/2" TC Series, Liquid Filled - PSI 0-400 (Spartan Logo)

The discharge shall have a 2-1/2" (63mm) glass filled nylon 66 case TC series gauge with a Spartan bezel and a display range from 0 to 400 PSI. The gauge shall have a black dial graphic and pointer.

Preconnect Discharge

The discharge shall be designated as a pre-connect so no cap and chain shall be required.

2-1/2" PRE-CONNECT

A 2-1/2" pre-connect with 2-1/2" plumbing shall be provided. The pre-connect shall terminate out a swivel NST.

Crosslay Load, 250' of 2-1/2" Hose, Single Stack

The 2-1/2" crosslay pre-connect shall have a capacity of 250' of 2-1/2" double jacket fire hose stored in a single stack.

All hose load calculations are estimated using Snap-Tite standard hose.

Foam Capable Discharge

The discharge shall be foam capable.

Valve, 2-1/2", Akron, Manual, 8825, Stainless Ball, Innovative Controls (Spartan Style) Push Pull Controller

An Akron Brass, model 8825, 2-1/2" Swing-Out valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts and must be capable of swinging out of the

waterway for maintenance by the removal of six bolts. The valve shall be manufactured and assembled in the United States. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by a manual actuator installed on the valve. The manual actuator shall be controlled by a Spartan Style Innovative Controls push/pull T-handle.

Pressure Gauge, Inn. Cntrls, 2-1/2" TC Series, Liquid Filled - PSI 0-400 (Spartan Logo)

The discharge shall have a 2-1/2" (63mm) glass filled nylon 66 case TC series gauge with a Spartan bezel and a display range from 0 to 400 PSI. The gauge shall have a black dial graphic and pointer.

Preconnect Discharge

The discharge shall be designated as a pre-connect so no cap and chain shall be required.

AERIAL WATERWAY DISCHARGE

A discharge shall be plumbed to the aerial waterway with 4" plumbing. The plumbing shall be constructed from schedule 10 stainless steel components.

Valve, 4", Akron, Electric, 8940, Composite Ball, 9335 Navigator Pro Controller (Valve, Pressure, Flow)

An Akron Brass, model 8940, 4" Swing-Out valve shall be provided. The valve shall have an all brass body with flow optimizing Fusion CF composite ball with Hydromax technology. The valve shall not require lubrication of seats or any other internal waterway parts and must be capable of swinging out of the waterway for maintenance by the removal of four bolts. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by an Akron Brass electric actuator installed on the valve. The electric actuator shall have a 25:1 gear ratio, which actuates from fully open to fully close in eight (8) seconds, a clutchless motor, and utilize an electric controller with current limiting design.

The electric actuator shall be controlled by an Akron Brass, model 9335, Navigator Pro valve controller. The electric controls shall be of true position feedback design, requiring no clutches in the motor or current limiting. The unit shall be completely sealed with momentary open, close as well as an optional one (1) touch full open feature to operate the actuator. Three (3) additional buttons shall be available to be used for preset selection, preset activation, CAFS activation and menu navigation. The unit shall be capable of being connected to a Pressure Sensor and provide an LCD display showing pressure as well as valve position indication. Valve position indication shall be determined from true position feedback and indicate the exact position of the valve. The unit shall be capable of being used in conjunction with at least two (2) additional displays to control one (1) valve. The unit shall be able to be programmed to Bar, PSI or kPa for pressure.

The unit shall have programmed pipe sizes and be capable of custom calibration to high and low flow ranges. The unit shall also be capable of turning on and off a solenoid used in a CAFS system. The only calibration required is to set the unit to the valve during initial set up. No other calibration shall be required. The display shall be a full color LCD display with a backlight. It shall have manual adjustment of the brightness as well as an auto-dimming option. Unit shall carry a five (5) year warranty

Pressure Gauge, Inn. Cntrls, 2-1/2" TC Series, Liquid Filled - PSI 0-400 (Spartan Logo)

The discharge shall have a 2-1/2" (63mm) glass filled nylon 66 case TC series gauge with a Spartan bezel and a display range from 0 to 400 PSI. The gauge shall have a black dial graphic and pointer.

WATERWAY FLOW METER

One (1) Class 1 Flowminder shall be installed to monitor the flow of the aerial waterway. The Flowminder shall have a LED display to indicate the volume of water being discharged. The display shall be weatherproof. The Flowminder shall be located at the pump panel.

ELECTRICAL SYSTEM

Wiring harnesses shall be the automotive type, engineered specifically for the builder's apparatus, and shall meet the following criteria. Under no circumstances shall diodes, resistors, or fusible links be located within the wiring harness. All such components shall be located in an easy to access wiring junction box or the main circuit breaker area. All wire shall meet white book, baseline advanced design transit coach specification and Society of Automotive Engineers recommended practices. It shall be stranded copper wire core with cross-linked polyethylene insulation complying with SAE specification J1128. Each wire shall be hot stamp function coded every three inches starting one inch from the end and continuing throughout the entire harness. In addition to function coding, each wire shall be numbered, colored, and gauge coded.

Wire harnesses shall be protected by 275 degree Fahrenheit minimum high temperature flame retardant loom. All nodes and sealed Deutsch connectors shall be waterproof.

Harnesses shall be modular in design; main harness system subdivided into several smaller sub-harnesses. The harness subsections shall be connected using Deutsch branded, heavy duty, environmentally sealed, connectors with silicone seals and a rear insertion/removal contact system. For isolation of electrical "zones" the harness subsections shall consist of a main harness, a pump harness with a separate pump gauge panel harness, a left body harness with a separate left compartment harness, a right body harness with a separate right compartment harness, and a rear body harness with two separate rear compartment harnesses.

The main harness and three body harnesses shall interconnect at a central, easy to reach location and their connectors shall not be obstructed by other harnesses or fuel/air lines. In addition, the main and body harness connectors shall be color-coded for ease of identification with their respective colors noted on the accompanying electrical diagrams.

Where connectors are not provided by the electrical component manufacturer, all 12-volt lights and other electrical components (excluding rocker and toggle switches) shall connect to the harnesses using Deutsch brand connectors; butt connectors are considered unacceptable.

All Deutsch connectors shall meet the following criteria:

All connectors shall be rated for three feet submersion in water.

Temperature range from -67° F to 257° F continuous at rated current.

All contacts shall be soldered unless a crimping tool or machine is used that gives an even and precise pressure for the terminal being used.

All contacts shall be pull-tested to ensure their integrity.

WEATHERPROOF DOOR SWITCHES

Because of the harsh environment and susceptibility to moisture on the fire ground, the fire apparatus compartment doors shall utilize weatherproof switches. No Exceptions.

The switches shall be used for activation of the compartment lights and to provide a signal to the door open circuit in the cab.

V-MUX ELECTRICAL MANAGEMENT SYSTEM

The apparatus shall be equipped with a V-MUX Multiplex System. There are several key benefits to multiplexing, one is to reduce the number of connections in a vehicle's electrical system, because of this it is important to limit the amount of modules that control certain functions of the vehicle.

Outputs:

The outputs shall perform all the following items without added modules to perform any of the tasks:

Load Shedding: The System shall have the capability to Load Shed with 8 levels any output. This means you can specify which outputs (barring NFPA restrictions) you would like Load Shed. Level 1 - 12.9v, Level 2 - 12.5V, Level 3 - 12.1V, Level 4 - 11.7V, Level 5 - 11.3V, Level 6 - 10.9V, Level 7 - 10.5, Level 8 - 10.1. Unlike conventional load shedding devices you can assign a level to any or all outputs. No add-on modules shall be acceptable; the module with the outputs must perform this function.

Load Sequencing: The System shall be able to sequence from 0 8 levels any output. With 0 being no delay and 1 being a 1-second delay, 2 being a 2-second delay and so on. Sequencing reduces the amount of voltage spikes and drops on your vehicle, and can help limit damage to your charging system. No add-on modules shall be acceptable; the module with the outputs must perform this function.

Output Device: The System shall have solid-state output devices. Each solid-state output shall be a MOS-FET (Metal Oxide Semiconductor - Field Effect Transistors); MOS-FETs are solid-state devices with no moving parts to wear out. A typical relay, when loaded to spec, has a life of 100,000 cycles. The life of a FET is more than 100 times that of a relay.

No add-on modules shall be acceptable; the module with the outputs must perform this function.

Flashing Outputs: The System shall be able to flash any output in either A or B phase, and logic is used to shut down needed outputs in park, or any one of several combined interlocks. The flash rate can be selected at either 80, or 160 FPM. This means any light can be specified with a multiplex truck with no need to add flashers. Flashing outputs can also be used to warn of problems. No add-on modules shall be acceptable; the module with the outputs must perform this function.

PWM: The modules shall have the ability to PWM at some outputs so that a Headlight PWM module is not needed. No add-on modules shall be acceptable; the module with the outputs must perform this function.

Diagnostics: An output shall be able to detect either a short or open circuit.

Inputs:

The inputs shall have the ability to be switched by a ground or battery signal.

The inputs shall be filtered for noise suppression via hardware and software so that RF or dirty power will not trick an input into changing its status.

System Network:

The Multiplex system shall contain a Peer-to-Peer network. A Master-Slave Type network is not suitable for the Fire/Rescue industry. A Peer-to-Peer network means that all the modules are equal on the network; a Master is not needed to tell other nodes when to talk.

System Reliability:

The Multiplex system shall be able to perform in extreme temperature conditions, from -40° to +85° C (-40 degree to +185 degree Fahrenheit) The system shall be sealed against the environment, moisture, humidity, salt or fluids such as diesel fuel, motor oil or brake fluid. The enclosures shall be rugged to withstand being mounted in various locations or compartments around the vehicle. The modules shall be protected from over voltage and reverse polarity.

12-VOLT SYSTEMS TEST

After completion of the unit, the 12-volt electrical system shall undergo a battery of tests as listed in NFPA, current edition. These tests shall include, but not be limited to:

Reserve capacity test

Alternator performance test at idle Alternator

performance test at full load Low voltage

alarm test

Certification of the results shall be supplied with the apparatus at the time of delivery.

TAIL LIGHTS

A Whelen M6 series LED tail light assembly shall be installed on each side of the rear of the apparatus. Each assembly shall include the following:

One (1) red LED stop/tail combination light
One (1) amber LED turn light with arrow
One (1) clear LED backup light

Each light shall be mounted in an individual chrome flange.

REAR WORK LIGHT SWITCH

A switch shall be installed above the tail light bezel on the left side of the rear of the apparatus. The switch shall be wired to the backup lights to provide additional work lighting. The rear work light circuit shall be deactivated when the park brake is disengaged. In addition to the lights being activated by the above switch, the lights shall also come on when the transmission is placed in reverse.

MIDSHIP TURN SIGNALS

Two (2) Whelen model OS LED midship auxiliary/turn signal lights shall be installed in the rub rail, one (1) on each side of the body.

The mid turn signals are to be set to steady burn and will only flash when activated.

PERIMETER GROUND LIGHTING

Tecniq, model T44-WD0B-1, 4" round LED lights shall be installed beneath the apparatus in areas where personnel may be expected to climb on and off the apparatus. The lights shall illuminate the ground within 30" of the apparatus to provide visibility of any obstructions or hazards. These areas shall include, but not be limited to, side running boards and the rear step area.

The lights activation shall match the chassis programming. The lights will be tied into the chassis ground light activation. All the body ground lights around the entire perimeter of the truck shall activate at the same time. Activation of the left and right side ground lights are not independent from each other.

CLEARANCE LIGHTS

Seven (7) Whelen OS red LED clearance lights with chrome bezels shall be installed in the tailboard portion of the rear. Two (2) lights in each of the driver's and officer's outboard corners and (3) centered at the rear.

Two (2) additional Whelen lights shall be located as high and wide as possible on the rear of the apparatus.

On the sides of the apparatus there shall be two (2) lights located in the rub rails on the body. Placed as per engineering drawing.

Clearance reflectors shall be placed on the apparatus to be in full compliance with applicable ICC and DOT codes and regulations.

Two (2) extension marker lights (rubber arm style) shall be installed at the rear portion of the body. The lights shall be attached to the back wall of the rear flex joint area. These lights shall aid the driver as to the location of the rear of the body during driving operations. The lights shall have forward facing amber bulbs and rearward-facing red bulbs.

CHASSIS SUPPLIED BACK UP CAMERA SYSTEM

A backup camera system shall be installed in the cab with the chassis. The camera shall be installed on the rear center upper portion of the apparatus.

DOOR OPEN AUDIBLE ALARM

An audible alarm shall be provided and connected to the door open circuitry.

UPPER ZONE A

The upper zone A warning lights shall be supplied and installed by the chassis manufacturer.

DIMMING FEATURE

The body warning lights to be wired into the chassis warning light dimming feature.

The side and rear warning lights shall be controlled through a chassis supplied virtual button on the vehicle display and control screen.

The warning light dimmer will automatically reduce the brightness of the warning lights with Multiplex display screen "Dim" or "Night" dimmer setting and with the park brake set.

Some lights do not have the dimming capability and will be omitted from the programming. This option is for Whelen 12v lighting only.

The dealer is responsible to ensure the the proper chassis option(s) (Ref. 5422-020), to be compatible with this option are selected or they will be subject to a charge for the additional costs.

UPPER ZONE C

Two (2) Whelen M6 Series Linear Super-LED lights with chrome flanges shall be installed in Upper Zone C, on the upper rear face of the apparatus. The warning lights shall incorporate Linear Super-LED and Smart LED technology. The M6 configuration shall consist of eighteen (18) clear Super-LED's and a clear optic polycarbonate lens. The warning lights, with the aid of two screws, shall have the ability to be installed as a surface mount warning lights.

The M6 shall utilize optic collimators and a metalized reflector for maximum illumination. The warning lights shall include an internal flasher with 164 Scan-Lock flash patterns including a variety of CA Title 13 compliant patterns, left/right, top/bottom, in/out, and steady burn. The lights shall also provide synchronize and low power features. The M6 shall meet KKK 1822F, NFPA, current edition, SAE and EC65 specifications.

The lens/reflector assembly shall be sealed and resistant to water, moisture, dust, and other environmental conditions. The hard coated lens shall provide extended life/luster protection against UV and chemical stresses. The light engine shall be installed at the rear of the unit and be vacuum tested to ensure proper sealing. The PC board shall be conformal coated for additional protection.

UPPER ZONE B/D SIDE WARNING LIGHTS

Four (4) Whelen ION -T Series red LED lights with clear lens and chrome housings shall be installed, two (2) each in Upper Zone B and Upper Zone D. The ION-T lights shall be capable of dimming should the dimming option be selected. The lights shall be compliant with NFPA KKK1822F requirements. The hard coated lens shall provide extended life/luster protection against UV and chemical stresses. The conformal coated PC board and liquid injection molded lens/gasket assembly shall provide additional protection against environmental elements. The solid state warning lights shall be vibration resistant.

The light will have red LED's with clear lens and chrome bezel.

LOWER ZONE WARNING LIGHT PACKAGE

Four (4) Whelen ION-T Series Super-LED lights with chrome housing shall be installed in the lower zones B & D of the apparatus to be in accordance with NFPA, current edition compliance. The Ion-T lights shall have the capability of dimming should the dimming option be selected.

Two (2) Whelen M6 Series Linear Super-LED lights with chrome flanges (or in the taillight cluster bezel) shall be installed in the lower zone C of the apparatus to be in accordance with NFPA, current edition compliance.

The lights shall have red LEDs and Clear Lenses.

INSTALL CHASSIS SUPPLIED TRAFFIC ADVISOR

The chassis supplied traffic directional light shall be installed by the OEM.

If you have selected the dimming feature, only Whelen traffic advisors with a TACTL5 control head will be programmed to be dimmable. All other traffic advisors will be omitted.

Traffic Directional Light Location, Rear Body Face, Surface Mounted

The traffic directional light shall be surface mounted on the rear of the body.

AIR HORN ACTIVATION

One (1) air horn button shall be provided on the driver's side pump panel. The button shall be red in color and include a label reading "AIR HORN".

WHELEN 12 VOLT SURFACE MOUNT SCENE LIGHT

Two (2) Whelen, model PCPSM2, Pioneer Plus Super-LED lights shall be installed on the apparatus. The 154 watt +12v DC single panel Pioneer light head shall incorporate Super-LED combination flood/spot light installed in a chrome surface mount flange. The light configuration shall consist of 48 white Super-LEDs for the spot light with a specialized spot reflector on the bottom, 48 white Super-LEDs in the flood light with a clear optic collimator/metalized reflector assembly on the top, and a clear non-optic polycarbonate lens. Each PCPSM2 LEDs are instant on/off, eliminating high inrush current and ream-up time. Correlated color temperature simulates bright midday light. The Pioneer flood/spot lights shall have 16,000 usable lumens. Each light measure 16.22" wide by 6.38" high by 1.73" deep. The PCPSM2 combination optic design projects light directly down at 5° and producing illumination to the side of the vehicle arching upward to a 90° pattern of light.

Lighting Location, Side Face of Body, Center, Both Sides

The two (2) lights shall be installed on the side face of the body in the center, one (1) on each side.

Lighting Activation, Pair, On V-Mux Screen and Pump Panel, 'LEFT SCENE' and 'RIGHT SCENE'

The driver's side and officer's side scene light(s) shall be controlled by a switch located on the V-Mux display in the chassis cab. One (1) rocker switch shall be located on the pump panel for each side of scene lights, for a total of two (2). The switch at the pump panel shall have an indicator that shall illuminate when the switch is in the "ON" position.

The activation for the driver's side scene lights on the V-Mux display and the pump panel switch shall be labeled "LEFT SCENE" and the officer's side shall be labeled "RIGHT SCENE."

WHELEN 12 VOLT SURFACE MOUNT SCENE LIGHT

Two (2) Whelen, model PCPSM1, Pioneer Plus Super-LED lights shall be installed on the apparatus. The 76 watt +12v DC single panel Pioneer light head shall incorporate Super-LED combination flood/spot light installed in a chrome surface mount flange. The light configuration shall consist of 12 white Super-LEDs for the spot light with a specialized spot reflector on the bottom, 24 white Super-LEDs in the flood light with a clear optic collimator/metalized reflector assembly on the top, and a clear non-optic polycarbonate lens. Each PCPSM1 LEDs are instant on/off, eliminating high inrush current and ream-up time. Correlated color temperature simulates bright midday light. The Pioneer flood/spot lights shall have 8,000 usable lumens. Each light measure 8.98" wide by 6.38" high by 1.73" deep. The PCPSM1C combination optic design projects light directly down at 5° and producing illumination to the side of the vehicle arching upward to a 90° pattern of light.

Lighting Location, Rear Face of Body, Both Sides

The two (2) lights shall be installed on the rear face of the body, one (1) on each side.

Lighting Activation, On V-Mux Screen and Pump Panel, 'REAR SCENE'

The rear scene light(s) shall be controlled by a switch located on the V-Mux display in the chassis cab and one (1) switch located at the pump panel. The switch at the pump panel shall have an indicator that shall illuminate when the switch is in the "ON" position. The activation on the V-Mux display and the pump panel switch shall be labeled "REAR SCENE."

77 AERIAL LADDER CONSTRUCTION STANDARDS

The aerial ladder shall be of the rear mount design with the ladder extending toward the front of the apparatus when stowed. The aerial ladder shall be comprised of three sections and shall extend to a nominal height of 77 feet at 72 degrees, measured in a vertical plane from the top rung to the ground. To maintain a maximum level of safety, units exceeding a 76 degree angle of inclination, in accordance with NFPA, current edition, shall not be acceptable.

OPERATIONAL ENVELOPE/REACH

The aerial ladder shall have an operations range of negative 6 degrees elevation to positive 72 degrees elevation.

A minimum horizontal reach of 71' 5" shall be measured from the turntable centerline to the outermost rung on the outermost fly section, with the aerial at full extension and at 0 degrees elevation.

STRUCTURAL MATERIAL

The primary load support members of the ladder shall be constructed of certified 100,000 PSI yield strength (minimum) steel tubing. Each section shall be trussed diagonally, vertically, and horizontally using welded steel tubing. All critical points shall be reinforced for extra rigidity and to provide a high strength to weight ratio.

All ladder rungs shall be constructed of A606 Type 4 certified steel tested per ASTM A370 standards. A606 Type 4 exhibits superior corrosion resistance over regular carbon steel as a result of the development of a protective oxide film on the on the surface. A606 Type 4 shall meet a minimum 6.0 Atmospheric Corrosion Factor. The ladder rungs shall be round and welded to each section utilizing "K" bracing for torsional rigidity.

All welding of structural components, including the aerial ladder sections, turntable, pedestal, and outriggers, will be in compliance with the American Welding Society standards. All welding personnel will be certified, as qualified under AWS welding codes. Materials used to manufacture the structural components are to be certified by the mill that manufactured the materials. Certifications or re-certifications of structural materials by vendors other than the mill they were manufactured at will not be acceptable. Any material testing that is performed after the mill test will be for verification only and not completed with the intent of changing the classification. Any welded structural component for the ladder will be traceable to their mill lots.

PRIMARY DIMENSIONS

The inside dimensions of the ladder shall be as follows: Base

Section - 33.500"

First Fly Section - 28.250"

Last Fly Section - 22.500"

The height of the handrails above the center line of the rungs shall be as follows: Base

Section - 22.375"

First Fly Section - 19.375"

Last Fly Section - 15.375"

NFPA SAFETY FACTOR AND RATED CAPACITIES

The methodology, definitions, testing, and criteria used by the aerial manufacturer to determine the preceding and following Safety Factor and Rated Capacity of the aerial device shall be in strict compliance with the definitions of such, in accordance with NFPA, current edition., and these specifications. Any apparatus claiming to exceed the testing requirements of NFPA, current edition shall provide certified documentation of the tests.

AERIAL DEVICE SAFETY FACTOR AND RATED CAPACITY

The purchaser desires to purchase with these specifications, an aerial device with a minimum 2.0:1 safety factor as required and in accordance with NFPA, current edition. Therefore, the aerial manufacturer shall hereby certify, by submitting a bid for these specifications; that the aerial device meets or exceeds the following requirements.

The design stress or primary stress within all structural load supporting members of the aerial device shall not exceed 50% of the minimum as welded yield strength of the material based on the combination of:

With front stabilizers: The dead load of the aerial plus the rated capacity of 750 lbs. at the tip of the aerial; while flowing 1500 GPM, at a 90-degree angle to ladder centerline;

OR

Without front stabilizers: The dead load of the aerial plus the rated capacity of 500 lbs. at the tip of the aerial; while flowing 1500 GPM, at a 90-degree angle to ladder centerline;

OR

No Waterway: The dead load of the aerial plus the rated capacity of 500 lbs. at the tip of the aerial; while flowing 1000 GPM, at a 90-degree angle to ladder centerline;

with the structural load supporting members of the aerial device at either; an ambient temperature of 75 degrees F or an elevated temperature of 350 degrees F- thereby exhibiting a minimum 2.0:1 safety factor in all feasible operational conditions. These capabilities shall be valid and true when the apparatus is deployed in the unsupported configuration, based upon 360 degree rotation, up to full extension, and at any degree of elevation (-6 to +72).

AERIAL DEVICE SAFETY FACTOR SERVICE LIFE

The purchaser desires to purchase an aerial device with a safety factor that remains NFPA compliant and constant throughout the life of the aerial device. The safety factor of every structural load bearing member in the aerial device shall remain above 2.0:1 for a "Safety Factor Service Life" of up to 20 years minimum. Any apparatus claiming to exceed the guidelines of NFPA, current edition shall provide certified documentation.

AERIAL SPECIAL LABELS

Legible, permanent signs shall be installed in positions readily visible to the operator to provide operational directions, warnings, and cautions. The signs shall describe the function of each control and provide operating instructions.

Warning and caution signs shall indicate hazards inherent in the operation of the aerial device. These hazards shall include, but shall not be limited to:

Electrical hazards involved where the aerial device does not provide protection to the personnel from contact with, or near proximity to, an electrically charged conductor.

Electrical hazards involved where the aerial device does not provide protection to ground personnel who might contact the vehicle when in contact with energized electrically charged conductors.

Hazards from stabilizer motion.

Hazards that can result from failure to follow the manufacturer's operating instructions.

AERIAL DEVICE SERIAL NUMBER PLATE

A permanent label shall disclose the following information relative to the aerial device (See turntable console lid): Model

Serial number

Shop Order Number

OTHER LABELS

Maximum hydraulic system pressure

Hydraulic oil type

All other appropriate labels to ensure safe operation of the aerial device shall be supplied in conspicuous locations.

THIRD PARTY NON-DESTRUCTIVE TESTING

Welds shall be tested using two (2) non-destructive methods by an independent third party. Devices that have not been certified by an engineer that is independent of the manufacturer shall not be acceptable. Welds shall be tested using two-(2) non- destructive methods by an independent third party inspection firm. Steel and aluminum ladders shall, at a minimum, have all welds tested using two-(2) separate NDT methods.

Aerial structures shall have 100 % of all structural welds tested using both magnetic particle method and visual testing method. Aerials that are fabricated of aluminum shall have 100% of all structural welds tested using dye penetrate method and visual method. Manufacturers who rely only on visual inspection, performed in-house or by a third party, as a primary method of testing shall not be considered, and their bid shall be rejected.

STRUCTURAL SAFETY FACTOR

The purchaser desires a device that has been tested by a third party for compliance with the 2 to 1 safety factor specified by NFPA, current edition. Devices that have not been certified by an engineer that is independent of the manufacturer shall not be acceptable.

NFPA AERIAL STABILITY FACTOR AND TESTING

A one and one-half to one (1.5:1) stability factor shall be provided. These capabilities shall be established in an unsupported configuration. Since the device is rated while flowing water, stability testing shall account for the distributed weight of water in a full waterway and water reactionary force as required by NFPA, current edition.

The following are specific descriptions of what tests are to be performed, and conditions they shall be performed under, and strictly adhered to by the aerial manufacture set forth in these specifications and the current edition of NFPA, current edition.

For both of the following tests, the only obstructions to a full 360-degree rotation with the aerial at 0 degrees elevation and full extension; shall be presented by the apparatus itself, and not external obstructions at the manufacturer's test location. This means that the aerial device manufacturer shall ensure that the testing grounds present no obstruction (trees, buildings, etc.) to the full 360-degree rotation at 0 degrees elevation and full extension, which may cause the need to raise the aerial to clear the obstruction.

Additionally, the apparatus shall be tested for stability only after the entire apparatus is complete. Manufacturers using a third-party to manufacture the aerial device must provide certified documentation the unit was tested by the manufacturer of the aerial and the final OEM manufacturer. This requirement is specified in NFPA, current edition as the apparatus being in "service-ready condition". There shall be no exception to this requirement due to the fact that it would be unlikely that actual weight distribution could be accurately simulated for the stability testing.

TEST 1

After the above conditions have been satisfied, the aerial shall be subjected to the following test in the presence of the third party testing company that is in compliance with these specifications. Specifically, the aerial device shall be placed on level ground with the stabilizers deployed per manufacturer recommendations. The aerial device then shall have 1.5 times the rated capacity placed at the tip of the aerial, with the device at full extension and at 0 degrees elevation, which is the most stringent configuration. The device shall be rotated 360 degrees raising and lowering the aerial as needed to clear the cab of the apparatus. The aerial shall prove to be stable during the entire test and no component of the aerial shall permanently deform.

TEST 2

After the above conditions have been satisfied, the aerial shall be subjected to the following test in the presence of the third party testing company that complies with these specifications. Specifically, the aerial device shall be placed on a 5-degree downward slope with the stabilizers deployed per manufacturer recommendations. The aerial device then shall have 1.33 times the rated capacity placed at the tip of the aerial, with the device at full extension and at 0 degrees elevation, which is the most stringent configuration. The device shall be rotated 360 degrees raising and lowering the aerial as needed to clear the cab of the apparatus. The aerial shall prove to be stable during the entire test and no component of the aerial permanently deform.

RUNG COVERS

Each rung shall be covered with secure, heavy duty, deeply serrated rubber sheathing. The rung cover shall be installed on a minimum of sixty percent (60%) of each ladder rung. Attachment of the sheathing to the rung shall be by mechanical means and an adhesive application. Under no circumstance shall the rung covers turn when a rung is at ambient temperature (75 degrees F) or at an elevated temperature (350 degrees F); there shall be no exception to this requirement for the safety of persons climbing the ladder sections.

The sheathing shall be easily replaceable if the rubber becomes worn, however, the rung covers shall be designed, constructed, and installed with lifetime service as the objective. To ensure ease of maintenance if damaged, manufacturers using embossed metal in place of the rubber rung covers are not acceptable.

To prevent corrosion of the rungs by introducing air to the inside, under no circumstances will rung covers attached with screws or rivets be acceptable.

HEAVY DUTY LADDER TRAVEL SUPPORT

A heavy duty ladder rest with poly pads shall be provided for support of the ladder in the travel position. The location of the travel support shall be directly behind the chassis cab. The travel support shall be fabricated from heavy duty steel and painted to match the primary body color. If the body is a two-tone design, the travel support shall be painted to match the top body color. The travel support shall be designed to be easily removable to allow for ease of maintenance and repair if necessary.

The base section of the ladder shall contain stainless steel scuff plates where the ladder comes into contact with the ladder support.

An indicator light shall be provided on the turntable to indicate when the ladder is aligned with the travel support and may be lowered into it. The ladder rest shall be attached to the front outrigger box assembly for added stability.

The ladder rest shall be illuminated for night time operation. The illumination light shall automatically activate with the aerial master switch.

CRADLE INTERLOCK SYSTEM

A cradle interlock system shall be provided to prevent the lifting of the ladder from the nested position until the operator has positioned all of the stabilizers in a load supporting configuration. An interlock switch shall be installed at the cradle to prevent operation of the stabilizers once the aerial has been elevated from the nested position.

ELEVATION SYSTEM

Two (2) double acting lift cylinders shall be utilized to provide smooth precise elevation from 8 degrees below horizontal to 72 degrees above horizontal. The lift cylinders shall have a 4" internal diameter (bore) and a 2.5" solid cylinder rod. The lift cylinders shall be equipped with integral holding valves located on the cylinder to prevent the unit from lowering should the charged lines be severed at any point within the hydraulic system.

The lowering of the ladder shall be controlled by a pressure limiting valve, limit the downward pull of the ladder when it is bedded. Both raising and lowering functions shall be influenced by flow compensation, which shall maintain ladder tip speed within the design speed regardless of load, angle, or extension. Ladder tip speed shall be decelerated above 65 degrees in order to reduce "tip-lash". Ladder lowering shall be controlled on the down motion to prevent the cylinders from completely retracting, thus allowing a cushion of oil for continuous ladder load readout.

The elevation cylinder upper and lower pivot pins shall be installed with a secondary tensioning system to secure the pins and prevent them from slipping out over time. The design shall not inhibit the pins from being removed for future servicing purposes.

EXTENSION/RETRACTION SYSTEM

A fully hydraulic powered extension and retraction system shall be provided using two (2) sets of Siamese hydraulic cylinders and cables. Each set shall be capable of operating the ladder in the event of a failure of the other. The extension cylinders shall each have a 2.5" internal diameter (bore) and a 1.25" diameter solid rod. Extension and retraction of the telescopic sections shall be internally limited within the cylinders, eliminating excess strain on the cables, sheaves, and ladder structure. Each of the cylinder, cable, and sheave assemblies shall be completely independent of the other, to provide a safety factor wherein a failure of one assembly will not affect the function and operation of the other. The extension cylinders shall be equipped with counter balance holding valves to synchronize the cylinders for smoother operation and prevent the unit from retracting should the charged lines be severed at any point within the hydraulic system.

The reeling of the cable shall be such to provide synchronized, simultaneous movement of all sections from full extension to full retraction. All pulleys and sheaves shall be enclosed as an added safety feature. NO EXCEPTIONS.

MAINTENANCE FREE SHEAVE BEARINGS

The aerial sheave bearings shall be made with continuous wound PTFE and high-strength fibers encapsulated in a lubricated, high-temperature epoxy resin. This material shall be corrosion-resistant, have a high load capacity, and be self-lubricating.

It shall also be resistant to shocks, misalignment, and wear. The bearings shall not require lubrication. Aerial cable systems that require extensive maintenance, and constant lubrication, are not acceptable.

AERIAL CABLES

To ensure a maximum level of safety the following standards shall be used on the extension and retraction cable system with no exception:

- Cables shall have a 5:1 safety factor based on ultimate strength under all safe operating conditions.

- The factor of safety shall remain above 2:1 during any extension or retraction system stall

- The minimum ratio of the diameter of cable to the diameter of sheave shall be 1:12

All cables shall be pre-stressed, proof-loaded, and certified by the cable manufacturer to minimize changes to the cable lengths and performance.

CERTIFIED CABLE SWAGED SHACKLES

All swaged shackle ends shall have a certification test from the manufacturer of the assembly.

ENERGY CHAIN

The electrical cable, hydraulic hose and/or air hose shall be routed through the interior of the structural tubing of the ladder sections as well as utilizing energy chain. The energy chain shall be routed through the inside section of the vertical side walls of the aerial ladder device. The cable and/or hose routing shall use one or both bottom cord rectangular tube(s) on the base section of the ladder and the bottom cord rectangular tube(s) on the last ladder fly section. The ladder sections between the base and last fly shall utilize the energy chain in order to route all electrical cables and hose lines.

Each model of energy chain used shall be adequately sized to fit the application.

Rollers, which are located in the lower portion of the ladder section(s), shall be constructed of a nylon plastic material that is specifically designed for these types of applications. Spacer pads, made from the same material as the rollers, shall be installed and evenly spaced in order to secure the Igus energy chain within the specifically designed carrier shield(s).

The electrical cables used to transfer power up to the ladder tip shall be energy chain flex cables. These cables are specially designed and custom fit for each aerial apparatus.

the energy chain is virtually wear-free and offers extremely quiet operation. The energy chain is very well suited to resist the harsh environmental conditions by being able to withstand extreme temperatures and is also UV resistant.

WEAR PADS/BEARING SURFACES

Nylon wear pads impregnated with molybdenum disulfide and high in molecular weight shall be used between the telescoping sections for maximum weight distribution, strength, and smoothness of operation. This impregnation shall provide a lubricating function.

Stainless steel adjustment screws shall be provided on the wear pads to permit proper side tension. Plates shall be installed on the sides of the slide pads where adjustment screws come into contact with them. No exceptions shall be allowed to this requirement to prohibit the adjustment screws from embedding themselves into the pads, which may cause the pad to crack and fail.

To prevent additional maintenance and pressure points from the limited surface area, roller systems in place of wear pads will not be considered acceptable.

ROTATION BEARING

A 44" diameter external tooth, swing circle bearing shall be used for the rotation system. The bearing shall provide 360 degrees continuous rotation. The bearing shall be designed specifically for the aerial device in lieu of the aerial device being designed to accommodate a particular bearing.

The bearing shall be bolted to the turntable and to the base support structure with SAE grade 8 bolts. Welding on the bearing in any manner shall not be acceptable.

The turntable base and the torque box bearing plate surfaces that contact the bearing shall be machined to prevent loading the bearing when the attaching bolts are brought to full torque. Machining of the surfaces shall be done after all welding to assure no further distortion of the material.

Shims shall not be acceptable as they reduce the surface contact area significantly thereby causing a concentration of forces at the shims.

BOLT TORQUING FROM TOP SIDE

All rotation bearing bolts shall be torqued from the top side of the turntable without the bolt or nut being held under the turntable by a person. Units requiring removal of equipment to access the torque bolts shall be considered unacceptable.

This design shall prevent the bolt from "spinning" while torque is being applied to the fastener. Application of Loctite or a similar compound alone, without any other means provided to hold the fastener shall not be acceptable. Additionally, this design feature shall not incorporate drilling, bending, welding on, or in any way modifying the structural fastener, nut, or washers.

ROTATION GEAR REDUCTION BOX

A hydraulically driven planetary gearbox with a drive speed reducer shall be used to provide infinite and minute rotation control throughout the entire rotational travel. The rotation gear reduction box shall be installed on the top side of the turntable so that it is easily accessible, yet it shall be installed so that it does not provide an obstruction or tripping hazard to persons on the turntable. Specifically, it shall be installed toward the front of the turntable, under the aerial ladder base section. Under no circumstance shall the gear box present any interference with the aerial device, even at low elevations.

Due to the additional maintenance required to keep two (2) rotation motors functioning properly without binding, units requiring more than one (1) rotation motor are not considered acceptable.

A spring applied, hydraulically released disc type swing brake shall be furnished to provide positive braking of the turntable assembly.

Provisions shall be made for manual operation of the rotation system should complete loss of hydraulic power occur. These provisions shall include a manual rotation drive tool supplied with the apparatus.

The hydraulic system shall be equipped with pressure relief valves, which shall limit the rotational torque to a nondestructive power. All moving parts of the rotation gear reduction box shall be enclosed or under the turntable decking eliminating safety hazards.

ROTATION INTERLOCK SYSTEM

The aerial device shall be equipped with a rotation interlock system to prevent the ladder from being rotated to any side where the stabilizers are not sufficiently extended to provide for the full tip load rating.

The system shall monitor the stabilizers for extension. When a stabilizer is not

sufficiently extended (short-jacked) to provide full tip load rating, the system shall prevent the aerial from being rotated more than 12 degrees past the front or rear center line into the short-jacked side of the apparatus.

A slowdown feature shall be built into the rotation interlock system. When the aerial is operating in a short-jacked mode, the rotational speed shall be automatically reduced, by approximately 50%, when the aerial is rotated to within approximately 10 degrees of the front or rear center line of the apparatus. The rotational speed shall remain reduced throughout an arc of approximately 20-degrees over the front or rear of the apparatus, regardless of the direction of the rotation movement.

The rotation function shall automatically stop when the aerial approaches the front or rear corner area of the short-jacked side of the apparatus.

The rotation interlock system shall allow for normal operation on the side of the apparatus where the stabilizers are sufficiently extended for full tip load rating.

An override system, activated by pull knobs within the main turntable control pedestal, shall be provided that allows the operator to rotate the aerial into the non-recommended (short-jacked) side of the apparatus, should the situation absolutely demand it.

To ensure the maximum amount of safety, units allowing aerial rotation to the short-jacked side of the apparatus or systems which only include a visual and audio warning without automatically stopping rotation shall not be acceptable.

AERIAL STOW OPERATION INTERLOCK SYSTEM

A safety feature shall be included in the aerial operational system that limits the possibility of damage to the apparatus when stowing the aerial.

When a rear mounted aerial is positioned over the cab area of the apparatus, the interlock system shall not allow the downward movement of the aerial below a preset angle of elevation, unless the aerial is rotated into the bed-zone envelope. The bed-zone shall be approximately 2 degrees of rotation to the left and right side of the center of the aerial bed support. Once this bed-zone envelope is attained, downward movement of the aerial shall be allowed for proper positioning into the bed support.

An indicator light shall be located at the turntable control station to inform the aerial operator when the bed-zone envelope is attained.

COLLISION PROTECTION INTERLOCK

The apparatus shall be equipped with a cab collision protection interlock. This interlock shall be enabled while rotating the aerial device at elevations as low as, or lower than the cab of the apparatus.

Should the operator accidentally rotate the aerial device toward the cab at an elevation low enough to cause a collision with the cab, the interlock shall automatically stop rotation of the aerial at a point that is within a few degrees of the cab.

A manual override shall be provided to override the interlock system.

APPARATUS BODY DAMAGE CONTROL INTERLOCK SYSTEM

A safety feature shall be included in the aerial operational system that minimizes the possibility of damage to the apparatus body at all angles for all standard (non-override) operational modes.

The system shall automatically stop the downward movement of the aerial at a preset angle of elevation unless the aerial has been rotated at least 80-degrees, left or right, from the center of the ladder support. Once this rotation point is reached, full range downward movement (to -8 degrees) shall be allowed.

The aerial manufacturer shall determine and set the angle of elevation where downward aerial movement is stopped. The highest point of an apparatus, in relation to the distance from the turntable, shall be used to determine the pre-set elevation angle stopping point.

The system shall also minimize the possibility of accidental damage to the apparatus body from aerial rotation whenever the aerial elevation is below the preset elevation angle stopping point.

Rotational speed shall be reduced by approximately 50% when the aerial is rotated within a minimum of 10 degrees of a body avoidance stopping point. Aerial rotation shall automatically stop before the aerial contacts the body of the apparatus.

The body damage interlock system shall have no effect on aerial operation when the aerial is raised above the preset downward movement stopping point.

The body damage interlock system shall not eliminate the possibility of damage to components such as telescopic lights that are in a raised position.

A manual override shall be provided that will override the interlock system.

POWER TAKE-OFF

The apparatus shall be equipped with a power take-off (PTO) driven by the chassis transmission and actuated by an electric shift, located inside the cab. The PTO, which drives the hydraulic pump, shall meet all the requirements for the aerial unit operations.

"THRU-DRIVE" HYDRAULIC PUMP

The hydraulic system shall be supplied by a pressure compensated, load sensing, variable gallonage type pump. The pump shall provide adequate fluid volume to allow all ladder functions to operate simultaneously, without noticeable loss of speed. The pump shall supply oil only when the ladder is in motion, thereby preventing overheating of the hydraulic oil.

The pump shall be a "thru-drive" design. This design shall be provided for applications that require a power source for additional hydraulically operated accessories or tools.

An interlock shall be provided that allows operation of the aerial device PTO shift only after the chassis spring brake has been applied and the chassis transmission has either been

placed in the neutral position or the drive position if the driveline has been disengaged from the rear axle.

HYDRAULIC SYSTEM

The tubing and hoses used in the hydraulic system shall have a high-pressure rating, with the tubing having a minimum burst pressure of 9,600 to 17,400 PSI and the hoses being a minimum of 8,000 to 13,000.

The hydraulic oil tank shall have an approximate capacity of 50 gallons. A dipstick shall be provided to check the oil level. The oil fill shall be furnished with a cap that shall act as a ventilator to provide clean fresh air into the oil tank and a 40-micron filter to provide positive protection from contaminants. A magnetic drain plug shall be provided in a low point of the oil tank. An easily accessible 3-micron replaceable oil filter shall be installed on the hydraulic oil tank. The hydraulic oil tank shall be furnished with two pick-up tubes, one tube for normal operation and the other for emergency operation. The emergency pick-up tube shall extend further down into the oil tank to provide for reserve oil in case a hydraulic line is broken.

The hydraulic system shall be protected from possible hydraulic pump malfunctions by a relief valve, which shall route the excess oil into the oil tank when the pressure in the hydraulic system exceeds 3,500 PSI. The hydraulic control valves shall also be protected by being plumbed to a pressure relief valve to protect them from high pressure.

The hydraulic system shall be designed in such a way that all non-sealing moving components whose failure could result in motion of the aerial device shall have a minimum bursting strength of four times the maximum operating pressure to which the component is subjected. The hydraulic system shall have adequate cooling for continuous operation of not less than 2-1/2 hours.

HYDRAULIC PRESSURE GAUGE

A 2-1/2" Innovative Controls 5,000 PSI, pressure gauge model IC-3010339-21933E- OTP, shall be located at the ground level control station to monitor the hydraulic system pressure. The gauge shall be liquid filled to prevent gauge shock when the hydraulic system is energized. The liquid shall not be vulnerable to freezing in subzero temperatures.

3 MICRON HIGH-PRESSURE FILTER

A 3-micron filter shall be installed in the output line of the hydraulic system, after the hydraulic pump.

Relocate the Stabilizer Hydraulic Valve

The stabilizer hydraulic and diverter valves will be located behind the turntable access steps and will be accessible through a panel.

RESERVOIR ISOLATION KIT

Two (2) 1/4 turn ball valves shall be installed on the hydraulic reservoir to isolate it from the hydraulic system. This shall minimize hydraulic fluid loss when changing filter elements during routine maintenance.

EMERGENCY PUMP

The apparatus shall be equipped with one (1) emergency hydraulic pump electrically driven from the chassis battery system. The emergency pump shall be capable of providing adequate ladder functions to stow the aerial and stabilizers in the case of main hydraulic pump failure.

Two (2) control switches for this emergency pump shall be provided. One switch shall be installed at the turntable control console and the stabilizer control station. The switches shall be labeled EPU.

The switch at the stabilizer control station shall be a lighted momentary switch. The switch at the turntable control pedestal shall be a lighted switch on the switch pad.

HYDRAULIC SWIVEL

The aerial ladder shall be equipped with a swivel at the turntable. The swivel shall connect the hydraulic lines from the hydraulic pump and reservoir to the aerial control bank at the turntable, above the point of rotation.

The swivel shall connect all the electrical circuits through the rotation point. A minimum of thirty-two (32) collector rings shall be provided. All collector rings shall be enclosed and protected with desiccant plugs to protect against condensation and corrosion. Due to the possibility of paint contamination and dirt attraction, units requiring oil or silicone to protect the collector rings shall not be acceptable.

The swivel shall allow for 360 degrees of continuous rotation of the aerial device with no loss of speed or capacity in functions.

ANGLE INDICATOR

A liquid filled angle indicator shall be mounted on the base section of the aerial ladder. The indicator shall give accurate elevation in degrees from -20 to +80 degrees in relation to level. The liquid shall be of proper viscosity and composition to remain in liquid form even when exposed to below zero temperatures. Reading of the indicator shall be accomplished by observing the position of a suspended ball in relation to the degrees of elevation as marked on the indicator housing. The indicator shall be backlit for visibility in low light conditions.

EXTENSION INDICATORS

Numerals shall be applied to the inside of the handrail of the base section opposite the turntable control console. The numerals shall be at appropriate intervals indicating total aerial extension in 5-foot increments. A band on the first fly section shall align with these marks at the appropriate extension distance. The extension indicator color shall provide a high contrast with the color of the ladder section to which it is applied. This shall make the length of aerial

extension easily readable by the operator by merely glancing at the indicators. Numerals indicating the length of extension shall be placed adjacent to indicating bands.

MANUAL ROTATION DRIVE TOOL

As required by NFPA, current edition, one (1) manual rotation drive tool shall be provided as a means to rotate the turntable in the unlikely event of power loss. This drive tool shall be provided as standard equipment.

TORQUE BOX

A "torsion box" subframe shall be installed on the chassis frame rails, integral with the stabilizers. The torque box shall be constructed of steel plate. The steel plates shall have a minimum yield strength of 36,000 psi and ultimate tensile strength of 58,000 – 80,000 psi. The torque box subframe assembly shall be capable of withstanding all torsional and horizontal loads when the apparatus is supported by the stabilizers. The torque box shall be bolted in place to the chassis frame rails.

The aerial torque box shall be painted with High Solids polyurethane paint. The color shall be black.

To prevent unnecessary stress on the chassis, apparatus that use the chassis frame in place of a true torque box shall not be acceptable.

The torque Box will be adequately lit for night time operations.

REAR STABILIZERS

One (1) set of extendable stabilizers with a span of 18', measured from the outermost edge of the stabilizers on each side of the apparatus, shall be installed for stability at the rear of the torque box. In order to get the true stabilizer spread, apparatus using measurements other than from each outside edge of the stabilizers shall not be considered acceptable.

The stabilizers shall be of the double box design with jack cylinders that have a 4" internal diameter (bore) and a 2.5" diameter solid cylinder rod. The jack cylinders shall be equipped with integral holding valves, which shall hold the cylinder either in the stowed position or the working position, should a charged line be severed at any point within the hydraulic system.

The steel used to build the stabilizer system shall have a minimum yield strength of 36,000 psi and ultimate tensile strength of 58,000 – 80,000 psi.

Vertical jack cylinder rods shall be fully enclosed by a telescoping inner box to protect the cylinder rods, seal glands and pistons against damage from nicks, abrasion, and chrome damage. All vertical stabilizer cylinders shall be removable from the top of the box tube. The inner double box system shall be further designed to stabilize the column load imparted upon the cylinder rod, thereby also protecting against damage which may occur from lateral loading possibly caused by side slopes, shifting or sliding of the apparatus on icy or unstable surfaces, sudden sinking of one or more jack pads, or on scene collision while the aerial device is deployed. Vertical stabilizers that require cylinders to be removed from the bottom, or have the vertical stabilizer cylinders exposed, shall not be acceptable.

The stabilizers shall be connected to the hazard light circuit to warn the driver if they are not stowed when the chassis parking brake is released.

Each extending style stabilizer shall have a painted stabilizer cover. The paint will match the color of the body unless noted in the shop order. The cover shall be adjustable to allow for a proper fit.

The stabilizers shall not include mechanical stabilizer pin locks, pin storage holders, or pin holes machined in the stabilizer extending beams.

STABILIZER STROKE

The stroke of the stabilizers shall be a minimum of 22". The stabilizer pad shall be maintained at a stored height of approximately 12" to 15" (dependent on required ground clearance and angle of departure) resulting in a minimum ground penetration of 10" or greater.

STABILIZER FINISH

The extending rear stabilizer beams, inner jack tubes, and stabilizer pads shall be shot blasted to remove any mill scale or contamination. The individual components shall then be hot dip galvanized. The galvanizing process shall require that the entire assembly is completely submerged. Following the galvanizing process, the surface shall be ground smooth to remove dross. This preparation shall provide maximum protection for these critical components. No exceptions shall be allowed to this requirement due to stabilizers exposure to salt spray and road debris.

The outer tubes shall be finished with a water-based, high quality, single component acrylic primer. The primer color shall be black.

STABILIZER EXTENSION SYSTEM

Extension of the horizontal rear beams shall be activated by dual extension cylinders, which shall each have a 2" internal diameter (bore) and a 1.25" diameter cylinder rod. The extension cylinders shall be totally enclosed within the extension beams to prevent damage to the rod and hoses. The extension beams shall be 4.00" x 6.00" x .25" wall steel tubing with a .62" steel plate welded to the top and bottom of each beam.

WEAR PADS/BEARING SURFACES

Nylon wear pads impregnated with molybdenum disulfide and high in molecular weight shall be used between the stabilizer housing assembly and the extension tube for maximum smoothness of operation.

Two (2) Nylatron wear pads shall be installed in each stabilizer extension system. There shall be one wear pad located on the top back portion of the extension tube assembly that shall glide on the inner wall of the top housing tube wall. There shall be an additional pad located on the inner wall of the bottom housing tube wall that shall separate the bottom side of the extension tube and the bottom wall of the housing tube. The pads shall be installed in such a manner as to reduce friction for ease of operation and to reduce the amount of metal to metal contact.

Each stabilizer down jack housing tube shall contain four wear pads, one (1) on each side of the tubes.

STABILIZER ANGLE LEVEL GAUGES

One (1) manual angle level gauge shall be located on the rear of the apparatus. The gauge shall have a sight bubble that will measure the side-to-side angle of the apparatus in 2 degree increments.

One (1) manual angle level gauge shall be located on the side of the apparatus, near the rear. The gauge shall have a sight bubble that will measure the fore-to-aft angle of the apparatus in 2 degree increments.

ELECTRIC / HYDRAULIC STABILIZER CONTROLS

The stabilizer controls shall be located at the rear of the apparatus. Two (2) stations shall be installed, one (1) on each side at the rear, arranged so that the operator has full visibility of the stabilizer being positioned. All stabilizer control functions shall be of the electric paddle joystick style. The make and model of the joysticks shall be P-Q controls, model M105. The controls shall be designed to allow stabilizers to be operated independently so that the vehicle may be set up in a restricted area or uneven terrain.

An electrically actuated diverter valve shall be provided in conjunction with the stabilizer controls as a safety device. The diverter valve shall allow the hydraulic fluid to flow either to the stabilizer circuit or the turntable and ladder circuit.

A stabilizer deployment warning alarm, activated by stabilizer mode, shall be provided at each stabilizer to warn personnel. The warning alarm shall deactivate only when all stabilizers are in the load supporting configuration, or when the diverter switch is no longer in the stabilizer mode.

The stabilizer controls shall each be accessible through a brushed stainless steel door.

GROUND CONTROL STATION

A control station shall be located at the rear of the apparatus in an easily accessible area. The control panel shall be illuminated for night time operation. The following items shall be furnished at the control console, clearly identified and located for ease of operation and viewing:

- Individual stabilizer down indicator lights
- Aerial PTO engaged indicator light
- High idle switch with indicator light
- Emergency hydraulic pump control with indicator light
- Stabilizer/Aerial diverter control with indicator light
- Side to side leveling bubble

A weather proof compartment shall be furnished behind the control panel and shall contain the aerial circuit breakers, interlock components and control circuit distribution terminals. The control station shall be accessible through a brushed stainless steel door.

The stabilizer controls and ground control station surfaces shall be fabricated from 3mm thick solid core aluminum composite panel with double-sided painted aluminum outer surfaces bonded to a solid polyethylene core. They shall include an Innovative Controls graphic overlay

design and supply a second surface-printed UV and scratch-resistant polycarbonate graphic overlay backed with UL 969-compliant outdoor adhesive.

AUXILIARY STABILIZER PADS

An auxiliary pad for additional load distribution on soft surfaces shall be supplied for each stabilizer. The pads shall be constructed of ultra-high molecular weight composite material that is a minimum of 1" thick with a minimum surface area of 576 square inches. The auxiliary pads shall be stored in locations that are readily accessible.

STABILIZER COVER WARNING LIGHTS

One (1) Whelen M6 Series Super-LED flashing light shall be installed on each extending stabilizer cover panel, for a total of two (2). These lights shall be red in color with a clear lens and activated by the aerial master switch and emergency master switch.

STABILIZER ARM WARNING LIGHTS

Four (4) Whelen 5G Series Super-LED red flashing lights shall be mounted on the stabilizer beams. Each stabilizer beam shall include two (2) lights, one (1) facing forward and one (1) facing rearward. The lights shall be mounted inboard of vertical jack tubes. The warning lights shall be activated by the aerial master switch.

STABILIZER WORK LIGHTS

Two (2) Truck-Lite LED, clear flood lights shall be provided at each stabilizer location to illuminate the surrounding area. The lights shall be located under the stabilizer beams and activated by the aerial master switch.

TURNTABLE

The turntable shall be designed in such a manner as to allow a generous working area, regardless of the position of the aerial, including when positioned at maximum elevation. The turntable shall also be designed to allow for the most efficient use of space on the apparatus body.

The turntable shall be a minimum of 94" side to side and 83" forward to aft.

It shall be covered with Tread-Grip Safe-Deck pattern decking to allow the walking surface to shed liquids with unparalleled ease and comply with NFPA intent, to provide secure footing for the operator in all weather conditions.

A downward lip shall "skirt" the turntable decking around the entire circumference to provide protection from hazards.

All hoses and electrical lines shall be routed under removable covers in order to prevent a tripping hazard. The covers shall also be designed to prevent damage from occurring to these components. Likewise, the center of the turntable shall have a removable step cover to prevent tripping hazards as well as provide for an easier transition to the first rung of the aerial ladder.

To prevent unnecessary added weight to the apparatus, the turntable shall not be built entirely from solid materials.

AERIAL PIVOT PINS

The aerial device pivot pins shall be located on the turntable and shall attach the aerial device base section to the turntable. To maintain a suitable safety factor, the pivot pins shall be composed of certified structural steel, thereby ensuring structural integrity.

In the interest of safety, the pivot pins shall be located as low as possible and shall be at the aerial device base rails. This shall keep the pivot points away from the areas where persons regressing to and from the aerial base section, might place their hand(s).

Aerial pivot pins shall be installed with a means to keep the pins in place. The design shall not inhibit the pins from being removed by a qualified mechanic.

TURNTABLE HANDRAILS

Three (3) handrails shall be of one piece construction and provide large sweep corners at the edge of the turntable. Each shall be 42" high and shall be constructed from knurled stainless steel. The handrails shall be installed around the rear 180 degree perimeter of the turntable for operator and personnel safety. Each individual handrail shall be secured to the turntable by the use of two (2) minimum 5/8" anchor bolts on the underside of the turntable. Additionally, chrome plated stanchions with rubber gaskets shall be provided on the top surface of the turntable where each railing meets the decking surface.

There will be two (2) openings in the handrails for access from the turntable access ladders.

TURNTABLE RESTRAINTS

Two (2) FRC ManSaver Bars, without covers, shall be installed in the spaces between the handrails. They shall be permanently attached at one end.

TURNTABLE WORK LIGHTING

The turntable shall be lighted for night time operation with two (2) 9" LED tube lights, which shall be automatically activated by the aerial master switch (day or night). The work lights shall be positioned so the light is directed toward the decking. The lights shall have cast aluminum housings to keep light from glaring upward into the operator's eyes.

An additional Truck-Lite LED light shall be recess mounted in the front access door of the control stand.

AERIAL HOUR METER

An hour meter shall be installed at the turntable control station connected to the system engagement control for the aerial. The meter shall register the total hours of aerial use for scheduling periodic maintenance.

Hour meters that are not connected to the aerial system engagement are not considered acceptable in order to capture true aerial operational hours.

TURNTABLE CONTROL CONSOLE

The turntable control console shall be located on the turntable, on the driver's side of the apparatus. The console shall be illuminated by an On-Scene LED light with mounting clips for night time operation and have a hinged weather cover. A pressurized gas filled cylinder shall be furnished on the cover to hold it in the open position. The gas filled cylinder shall assist in closing the cover automatically when it is positioned over the center. The console surface shall be angled toward the operator so controls may be viewed and operated ergonomically. Rubber bumpers shall be provided so that when the control console lid is closed, the lid and the control panel will be protected from each other (no metal to metal contact).

Three (3) handles for the ladder hydraulic functions (elevation, rotation, and extension) shall be installed at the control console. The controls shall be manual for safety and durability reasons - No Exceptions. The function of each control lever shall be cast into the plate under the appropriate lever. The controls shall be capable of being operated independently or simultaneously with a gloved hand. The speed of movement caused by moving any control shall be minimally affected when multiple controls are activated.

The control console surface shall be fabricated from aluminum and shall include a graphic overlay. The overlay shall be Innovative Controls design and supply a second surface-printed UV and scratch-resistant polycarbonate graphic overlay backed with UL 969-compliant outdoor adhesive.

The control stand box shall have tread plate and the lid shall be painted aluminum. A hinged door shall be provided on the front of the control console with a lift and turn latch. This door shall allow access to the inner components for inspection purposes. A recessed work light shall be provided in the access door. A hinged access door shall be provided on the outboard side of the control panel. The door shall be provided with a spring loaded, slotted head latch. The opening shall allow access to the electrical components for service purposes

All turntable controls shall override the controls at the tip.

The following items shall be furnished at the console, clearly identified and located for ease of operation and viewing:

- Elevation, extension and rotation controls
- Lighted push/pull button to deactivate hydraulic and electrical system
- Fast idle button
- Panel light mounted in cover

Rung alignment light
Ladder light switches
Ladder overload warning horn System
pressure gauge Loadminder
Emergency pump unit switch and light
Monitor function controls Intercom
with controls Operators load chart

SYSTEM LOCK CONTROL

A push/pull systems engagement control shall be installed at the turntable control console. The control shall energize the hydraulic system for the ladder function and provide the flow of hydraulic fluid to the master valve bank. An automatic throttle switch shall be attached to the systems engagement control that advances the engine speed to a preset RPM when the engagement control is in the "RUN" position. In the "LOCK" position, the engine speed shall return to the normal idle RPM and the hydraulic system be de-energized.

RETRACTION OVERRIDE SYSTEM

An integral part of the extension/retraction system shall be a safety system to prevent injury to personnel on the end of the fly section while the ladder is being retracted. This system shall be designed in such a manner to prevent retraction of the aerial device when the folding steps at the end of the fly section are in overlap with the rungs of another section.

When the steps are in an overlap condition, retraction shall only be accomplished by an operator at the primary control station pressing and holding a momentary switch at the turntable control console while the retraction control is operated.

AERIAL LOAD SENSING SYSTEM

A Loadminder shall be installed at the operator's pedestal indicating the load(s) on the aerial device. The display shall be in the form of a LED illuminated bar graph. The instrument shall be readable in day and night conditions. The display shall be a "real time" display, thereby giving immediate readings to the operator. Additionally, a color-coded bar shall be above and below the actual LED bar graph, to surround the actual reading given to the operator; thereby making the display easier and faster to read. The color coded bars shall progress from green to yellow, and finally to red. When the LED bar graph illuminates, representing a load on the aerial ladder, the operator need only glance at the display to determine the load applied to the aerial device - in relation to 100% rated aerial device capacity.

The readout given by the display shall be continuous relative to the NFPA compliant aerial device rated capacity as stated in these specifications, and shall include (but not be limited to) the following items:

Accumulated equipment on any and all ladder sections, or at the tip including manufacturer installed items or customer installed items

- Accumulated personnel on any and all ladder sections or at the tip
- Accumulated ice buildup on any and all ladder sections or at the tip
- The total load suspended from any load lifting / rappelling eye installed by the manufacturer
- Any load reaction from dynamic loads placed on or realized by the aerial structure
- Any water weight or reactionary force realized by the aerial structure
- Any combination of the above items

The Loadminder shall be connected to a 100 dB. alarm at the operator's control station that shall sound when the ladder load is above the rated capacity. This alarm system shall also be connected to two (2) strobe lights on the end of the base section, one on each side, to provide further notice to the operator of an unsafe condition.

AERIAL LADDER LOAD CHART

A load chart shall be installed at the turntable control console of the aerial ladder. The load chart shall illustrate the full operating range of the ladder, with the waterway dry or flowing water.

AERIAL COMMUNICATION SYSTEM

An Atkinson Dynamics two (2) station communication system shall be provided between the aerial tip and the turntable control console. The communication system shall be a two-way system with the communication speaker at the tip requiring no operator attention to transmit or receive. The transmitting and receiving volume controls shall be located at the turntable control console.

TRACKING LIGHTS

Two (2) Whelen MPPW lights shall be installed low ahead of the cradle, on the base section of the ladder, one (1) on each side. The light fixtures shall have a white die cast aluminum housing, powder coated white.

The LED work lights shall be rated to last 100,000 hours and produce over 3600 lumens with an amp draw of 4 amps. The light shall have a 90-degree x 20-degree wide flood pattern. The lights shall be controlled from the operator control station at the base of the ladder.

A bolt-on bracket to support the light shall be included.

Tracking Lights Switch, Toggle Switch at Turntable Console

The tracking lights shall be controlled by a toggle switch located on the turntable control console.

EGRESS

A shorter than standard length, removable, bolt on egress shall be installed on the tip of the fly section. Only certified structural fasteners shall be utilized to attach the egress to the tip of the fly section. Additionally, the fasteners shall be stainless steel. This design shall allow for easy replacement should the egress become damaged during rescue operations. This shall minimize the risk and cost of downtime, as is common with welded on egresses. For this reason, a design that allows the egress to be welded to the fly section shall not be acceptable.

When the ladder is at 0 degrees elevation, the rungs on the egress shall be on a plane of -11 degrees. This shall provide a smoother transition onto the ladder from the tip when it is at a high angle elevation.

The egress shall have handrails that match the fly section handrails for an unnoticeable transition between the two. The egress handrails shall have a radius design at the tip to eliminate corner joints, increase strength, and provide a professional appearance.

AERIAL LADDER CREEPER CONTROLS

A remote ladder creeper control shall be provided at the tip of the fly section. The control shall consist of three (3) spring loaded, triple pole double throw, return to center switches, one for each main ladder function. Each function switch shall be labeled on a black and white label that is located adjacent to the switches. Each switch shall be encircled by a rubber boot to protect the switch box from collecting moisture. The creeper control shall allow the crew member on the tip of the ladder to operate these three functions within the speed limitations as set forth in accordance with NFPA, current edition.

A momentary switch shall be installed at the lower turntable control console to activate the creeper control system. When in the "normal" position, the system shall be de-energized. When the switch is held in the "on" position, power shall be available to the person at the tip and they shall be able to adjust the aerial with the creeper controls.

SECTION FOLDING STEPS

One (1) set of folding steps shall be installed at the tip of the ladder to provide solid footing for personnel while operating the elevated master stream device.

A kick plate shall be provided with each step.

When folded for storage, the steps shall not present significant obstruction to personnel on the apparatus.

FLY SECTION LOAD LIFTING/RAPPELLING EYES

The aerial ladder shall be equipped with two (2) load lifting/rappelling eyes at the tip of the fly section. The load lifting/rappelling eyes, as a pair, shall be rated not to exceed the tip load of the ladder structure.

AERIAL WIRING

The DC wiring shall be Thermoplastic Elastomer (TPE) control cables and shall be highly flexible with very fine copper stranding. The cables shall have a center core strain relief for high tensile strength. The conductors shall be braided in bundles around the high tensile strength core. The outer jacket shall be gusset-filled, pressure-extruded, oil-resistant, bio-oil-resistant, PVC-free, halogen-free, and UV-resistant with low-temperature flexibility. The cables

shall have a minimum bending radius of not greater than 5x the outer total diameter of the cable while moving.

This will allow up to 30 amps of 12V lighting on the aerial.

WHELEN PIONEER PLUS TIP LIGHTS

Two (2) Whelen PCH1P1 Pioneer Plus Super-LED light on a pedestal mount shall be installed at the tip of the aerial. The rectangular extruded light fixture with die cast end caps shall measure 10-13/16" wide by 9-3/4" high by 6-1/16" deep and have a white powder coat finish.

The light fixture shall have a single panel of (2) horizontal clusters of LED lamps with a molded vacuum metalized reflector that draws 6 amps at 12 Vdc. The light shall be mounted with an aluminum adapter plate attached to the pole with an On-Off toggle switch, switch box and a locking swivel joint with a 3/4" diameter NPT threaded base to allow the light to be manually tilted up/down and locked in position by the operator. There shall be a removable handle standard on the lighthouse. The light shall have the Whelen lifetime warranty.

The light shall be complete with one (1) Whelen pedestal mount.

Tip Lights Locations, Ladder Tip, Both Sides

The lights shall be located at the aerial tip, one (1) on the driver's side and one (1) on the officer's side.

Tip Light(s) Switch, Toggle Switch at Turntable Console

The tip light(s) shall be controlled by a toggle switch located on the turntable control console.

LOCATOR LIGHT

One (1) Tomar self-controlled amber strobe locator light shall be provided. The light shall be activated by the aerial master switch.

Locator Light Location, Ladder Tip, Driver's Side

The locator light shall be located on the driver's side of the aerial tip.

WATERWAY SYSTEM

A waterway system shall be provided consisting of the following components and features.

A 4-1/2" outside diameter pipe shall be connected to the water supply on one end and to a water swivel at the rotation point of the turntable. The swivel shall allow the ladder to rotate 360 degrees continuously while flowing water. A 4" inside diameter pipe waterway swivel shall be routed through the rotation point swivel up to the heel pin swivel. The heel pin swivel shall allow the water to flow to the waterway while elevating the aerial ladder from -8 degrees below to +72 degrees.

The heel pivot pin shall not be integral with the waterway swivel at any point. The design of the waterway shall allow complete servicing of the waterway swivel without disturbing the heel pivot pin.

WATERWAY PIPE DIAMETERS

The integral telescopic water system shall consist of a 4-1/2" outside diameter pipe in the base section, a 4" outside diameter pipe on the second section, and a 3-1/2" outside diameter pipe on the fly section.

CP-84 CHROME PLATED WATERWAY

The CP-84 telescopic waterway shall be composed of high quality 84K PSI steel. The pipes shall be professionally prepared to accept a highly durable, hot dipped galvanizing coating. Preparation shall include de-greasing as needed, followed by shot blasting to remove any contaminants or scale.

Following preparation, each water pipe shall be hot-dipped galvanized. The pipes shall be completely submerged in the galvanizing bath to ensure 100% coverage and intimate bonding of the galvanic coating to the steel. Following the dipping process, all dross shall be ground and the perimeter of the pipe shall be ground to a smooth finish.

Each pipe shall then be prepared to be heavily chrome plated. Materials (nickel/copper/chrome) used in the chrome plating process shall be of the highest purity to complete the chrome plating process. The chrome shall be polished to an extremely high luster.

The result of the preceding processes shall provide an aerial waterway that is of unequalled quality and durability. The heavy galvanizing and chrome plating shall ensure that no corrosion occurs on the waterway and that the outer surface remains smooth for long seal life. Additionally, the chrome plating shall aid in preventing nicks, scratches, and abrasions from occurring where they would otherwise easily occur with softer and more malleable aluminum tubes.

The waterway on the base section of the aerial device shall be galvanized with the process described above, followed by complete coverage utilizing paint of job color.

POSITIONAL WATERWAY

The waterway shall be a positional or detachable type in order to allow the uppermost fly section to be clear of obstructions when using the aerial device for rescue purposes. It shall be designed in such a manner as to allow the master stream device to be secured to either the tip of the last fly or to the end of the next lower section. The device shall be designed in such a manner that when it is in the forward position the monitor master stream device shall be connected to the tip of the ladder and when it is toward the back, the device travels with the next lower ladder section. The connection for remote nozzle

controls and electricity to the unit shall be permanent and not incorporate any spring loaded cable reels or electrical contact pads that can foul or become damaged allowing the monitor

to become inoperable. In addition, the system shall require no external power supply such as a battery to operate the monitor.

A switch shall be located at the turntable control console for the positional waterway. The switch shall activate an electric actuator mechanism that will lock the monitor in the desired position. Two (2) separate indicator lights shall be located near the positioning switch to inform the aerial operator of the current position of the monitor. The individual lights shall be labeled "Rescue" and "Water Tower".

To ensure maximum safety for personnel, units that require a firefighter to climb to the end of the ladder and manually change the position of the waterway will not be considered acceptable.

WATERWAY RELIEF VALVE

A 3/4" safety relief valve shall be installed in the base section waterway. The relief valve shall be preset at 240 psi. The valve shall protect the waterway from overpressure, which is normally caused by the capping of the monitor outlet. This valve in no way is to act as a relief for the total flow of the system.

WATERWAY DRAIN VALVE

A 1-1/2" drain valve shall be installed in the lower section of the aerial plumbing under the apparatus. The valve, when opened, shall drain the aerial waterway and lower plumbing.

AERIAL WATERWAY INLET

A 4" inlet, with 4" plumbing, shall be installed on the officer's side pump panel of the apparatus to be used for supplying the aerial waterway.

Bushing, 4" NST - NH Cap (HCC2814AC), Chrome, South Park

A 4" NST waterway weld bushing shall be provided.

One (1) 4" NH thread rocker lug chrome plated vented cap, complete with cable or chain, shall be provided.

TASK FORCE TIPS FLEX ELECTRIC MONITOR

There shall be one (1) Task Force Tips Flex, model YN-EP1A-L, electrically controlled monitor installed at the end of the aerial waterway. The monitor shall operate with 12-volt direct current.

The electrical components for the monitor shall be waterproof and utilize current limiting and absolute position feedback to protect the drive train at the ends of travel. A six-pin electrical connection for a TFT remote control nozzle shall be provided. Electrical enclosure systems shall have a rating of IP66/IP67 per IEC 65029. The monitor shall allow direct connection to J1939 CANbus systems. The monitor shall be compatible with optional wired and wireless control stations. Monitor shall allow programming, operation, and service procedures through a mobile app. The monitor shall be equipped with manual override knobs for use in the event

of power failure. The motors and knobs control stainless steel worm gears for rotation and elevation adjustment.

The monitor shall have the following capabilities:

- Full horizontal rotation with travel stops at 90° left and right of center
- Vertical travel of 135° with stops at 90° above horizontal and 45° below horizontal
- Field changeable rotation stops, and elevation stops at 45° and 60° above and/or 15° below horizontal. Soft stops can be programmed in any position
- Flow capability of 2000 GPM (7600 l/min) with friction loss of no more than 5 PSI (0.3 bar)
- Maximum operating pressure of 200 PSI

For resistance to corrosion the monitor shall be constructed from hard coat anodized aluminum with a silver powder coat interior and exterior finish. A threaded port for an optional pressure gauge shall be provided. The unit shall have a unique serial number and be covered by a written five-year warranty.

The monitor shall be designed with a unique waterway that minimizes the path of travel, reduces friction loss and turbulence, and produces a far-reaching water stream. The monitor shall be configured with a CODE-RPF female inlet and 3-1/2" male NH outlet.

PRIMARY REMOTE MONITOR CONTROL STATION (TURNABLE)

Task Force Tips model # YC-RP panel mount operator station for Flex series remote control monitors shall be installed. The operator station shall be designed for surface panel mounting from front of panel using 4 fasteners. The unit shall have a mini four direction toggle for horizontal rotation, and vertical elevation. A paddle toggle shall control nozzle stream pattern adjustment. Five programmable buttons can be used to control oscillate, park, water valve, and other accessories. The button labels can be changed to match the functions. Controls can be operated with a gloved hand. Unit shall be programmable from a mobile app. Communications shall conform to J1939 standards.

The unit shall be weatherproof and utilize weatherproof components such as liquid tight electrical connections. A Deutsch connector shall be provided for ease of service and installation. The unit shall have a unique serial number and shall be covered by a two- year warranty.

MONITOR COLOR

The monitor shall be powder-coated silver by the monitor manufacturer and shall not be repainted by the OEM.

NOZZLE

A Task Force Tips, model M-ERP1500-NN, Master Stream automatic electric nozzle with 3-1/2" NH thread swivel base shall be provided. The nozzle shall be capable of producing a stream at any volume from 300 to 1500 GPM. The nozzle shall feature an electric pressure adjustment knob, which allows the operating pressure to be adjusted to tactile detent settings

between 70 and 120 PSI. The nozzle shall include rubber bumper incorporate "power fog" teeth for fully-filled, finger-free fog pattern. The nozzle shall be lightweight hard coat anodized aluminum for maximum resistance to corrosion and wear.

MONITOR SWEEP

The monitor shall be capable of vertical positioning from -135 degrees to 0 degrees and horizontal positioning of 90 degrees from side to side, for a full 180-degree sweep.

MONITOR SAFETY INTERLOCK

The monitor shall be equipped with a monitor safety interlock (MSI) that shall prevent the monitor or nozzle from coming into contact with the cab windshield and/or roof. The MSI shall automatically stop the operator from lowering the aerial into the cradle until the monitor has been fully raised to prevent damage. In addition, the blue bed zone indicator shall not illuminate until the ladder is aligned with the cradle and the monitor is in the fully raised position.

STOW FEATURE

The monitor shall be equipped with a stow feature. When activated, the stow feature shall return the monitor to a pre-programmed or nested position. The stow feature shall be activated by a covered momentary switch on the turntable control console. A light shall be provided on the control console to advise when the monitor is in the nested position.

MONITOR CONTROLS

The aerial master stream device shall have two (2) separate control stations. One station shall be at the main aerial turntable control console. The other station shall be located at the tip of the aerial ladder. Each station shall have the capability of controlling the nozzle pattern as well as the horizontal and vertical position of the device.

2-1/2" AERIAL TIP DISCHARGE

A 2-1/2" discharge shall be located at the tip of the aerial ladder. The discharge shall have a Task Force Tips VUM manually controlled monitor valve provided under the monitor. The valve shall be controlled with an NFPA compliant slow-close crank handle gear operator. A position indicator shall be provided to allow for quick visualization of the status of the valve in the open, closed or partial positions. The unit shall have a flow capability of up to 2000 GPM with friction loss no more than 6 psi. For maximum corrosion protection, the aluminum casting shall be hard coat anodized, with a silver powder coat internal and external finish. The valve ball shall be stainless steel and have an automatic drain for draining waterway when the valve is closed and unpressurized. The unit shall have a unique serial number and be covered by a five-year warranty.

The valve shall be configured with a 4" ANSI 150 flange inlet and CODE-RPM threaded male outlet. Port C1 shall be located on the left side of the valve and have a left-hand elbow quarter turn ball valve with 2-1/2" NH male outlet installed, extended 4-3/4" from the main valve. C2 and C4 shall have blind plugs installed. C3 shall be located on the right side of the valve and have an External Automatic Drain Valve. All 2-1/2" NH male discharges shall have a 2-1/2" NH female by 1-1/2" NH male thread reducer and a 1-1/2" NH female cap with lanyard.

RUNG ILLUMINATION LIGHTING

The aerial ladder sections shall be equipped with permanently installed blue LED rung illumination lights. The lights shall be mounted on the inside of the ladder sections, facing inward; on each aerial section in a "staggered" configuration. The blue colored lens shall serve to illuminate ladder rungs without inducing any glare, which would hinder safety. Each light shall be equipped with an integral guard to protect it from damage. The lights shall be positioned such that all light be directed inward toward the rungs of the aerial sections, maximizing safety for all personnel during night operations. The lights shall also aid the operator in locating aerial ladder section in conditions of reduced visibility.

Designs that use luminescent tape on the rungs shall not be permitted as they require previous exposure to sunlight and can wear off over time.

Rung Lighting Switch, Toggle Switch at Turntable Console

The rung lighting shall be controlled by a toggle switch located on the turntable control console.

AERIAL LADDER SIGNS

Two (2) sign panels measuring 16" tall x 133" long shall be installed on the base section of the aerial ladder, one on each side. The sign panels shall be fabricated of 1/8" aluminum plate. The signs shall be large enough to accept a maximum lettering size of 12" high.

BASE SECTION MOUNTED STOKES BASKET STORAGE

A storage box shall be provided on the base section for a Stokes basket. The box shall be on the officer's side of the base section to be the least obtrusive when viewing the aerial tip from the turntable control console. The box shall be fabricated from smooth aluminum and be painted to match the ladder. The box shall be attached to the aerial section using stainless steel fasteners. A painted aluminum lid shall be provided on the box to secure Stokes basket.

The stokes basket box will have a prox switch wired into the door-ajar warning light circuit to notify when the lid is open.

STRETCHER

The stretcher shall be dealer/customer supplied.

BASE SECTION MOUNTED ROOF LADDER

One (1) roof ladder mounting bracket set shall be provided on the outside of the base section, on the driver's side, for a solid beam roof ladder. The brackets shall be formed using break and bend techniques for added strength and an outstanding appearance. To enhance durability, the brackets shall be coated with Bedliner Coating. Stainless steel fasteners shall be employed where the ladder bracket is bolted to the aerial section or ladder sign panel.

The roof ladder shall be secured using a spring-loaded handle, which is easily lifted away from the roof ladder with a gloved hand for safe access.

Ladder, (1), Duo-Safety, 14' Roof, Double End, 775-DR

One (1) Duo-Safety, model 775-DR, 14' aluminum roof ladder with roof hooks on each end shall be provided.

FLY SECTION MOUNTED PIKE POLE

One (1) pike pole mounting bracket shall be provided on the driver's side of the aerial fly section. A strap shall be provided to hold the pike pole in the bracket.

BODY PAINT PREPARATION

The apparatus body and components shall be metal finished as follows to provide a superior substrate for painting:

All aluminum sections of the body shall undergo a thorough cleaning process, starting with a phosphoric acid solution to begin the etching process, followed by a complete rinse. The next step shall consist of a chemical conversion coating applied to seal the metal substrate and become part of the aluminum surface for greater film adhesion. After the cleaning process, the body and its components shall be primed with a high solids primer and the seams shall be caulked.

All bright metal fittings, if unavailable in stainless steel or polished aluminum, shall be heavily chrome plated. Iron fittings shall be copper underplated prior to chrome plating.

PAINT PROCESS

The paint process shall follow the strict standards as set forth by Guidelines.

The body shall go through a three-stage paint process: primer coat, base coat (color), and clear coat. In the first stage of the paint process, the body shall be coated with primer to achieve a total thickness of 2-4 mills. In the second stage of the paint process, the body shall be painted with BTLV650 High Solids Polyurethane Base Coat. A minimum of two to three coats of paint shall be applied to achieve covering. In the final stage of the paint process, the body shall be painted with a Clear Top Coat. A minimum of two to three coats shall be applied to achieve a total dry film thickness of 2-3 mills.

As part of the curing process, the painted body shall go through a Force Dry / Bake Cycle process. The painted components shall be baked at 185 degrees for 3 hours to achieve a complete coating cure on the finished product.

HAND POLISHED

After the Force Dry / Bake Cycle and ample cooldown time, the coated surface shall be sanded using 3M 1000, 1200, and/or 1500 grit sandpaper to remove surface defects. In the final step, the surface shall be buffed with 3M super-duty compound to add extra shine to coated surface. No more than .5 mil of clear shall be removed in this process.

The paint shall be a standard non-metallic - color.

BODY PAINT COLOR

The paint chip is the sole defining paint color; it overrules what is described in this spec. The body shall be painted with High Solids Polyurethane Base Coat.

The single tone body shall be painted red to match the chassis.

Overlays, Pump Module Structure, Match Pump Panel, Side Mount

PUMP MODULE STRUCTURE OVERLAYS

The side mount structure overlays shall be the same material as the pump panels on each side of the pump compartment. The tubular structure will remain unpainted aluminum.

AERIAL COMPONENT PROTECTION / PAINT

The paint chip is the sole defining paint color; it overrules what is described in this spec. All

aerial device components above the rotation point that are not chrome plate, bright aluminum tread plate, or stainless steel shall be painted. All areas to be painted shall be sanded to remove any metal flakes and smooth any rough surfaces. All surfaces to be painted shall be phosphatized to remove metal impurities, aid paint adhesion and inhibit rust. The components shall be primed and finish painted with a high gloss polyurethane paint. The support structure and components below the rotation point shall be painted black.

The extending stabilizer beams, inner jack cylinder protective tubes, and stabilizer pads shall be hot dip galvanized. The extending stabilizer beams, inner jack tubes, and stabilizer pads shall be shot blasted to remove any mill scale, or contamination prior to galvanizing.

Following this preparation, the individual components shall be hot dip galvanized. The galvanizing process requires that the entire assembly be completely submerged. Following the galvanizing process, the surface shall be ground smooth to remove dross. This preparation shall provide maximum protection for these critical components. Following surface preparation, components shall be coated with black water-based self-etching coating. No exceptions shall be allowed to this requirement.

The high gloss polyurethane paint, which shall be applied to the aerial ladder sections and other components above the rotation point, shall be cured at an elevated temperature for a period not less than 2 hours to enhance durability and appearance. The temperature shall not be less than 180 degrees Fahrenheit. Curing of the paint shall promote a chemical reaction within the substrate that shall harden the paint. The curing shall be performed in a clean, sealed, controlled atmosphere. The atmosphere shall comply with all environmental standards and any air entering the chamber shall be filtered.

AERIAL DEVICE PAINT COLOR

The aerial device shall be painted with High Solids polyurethane enamel paint. The color shall be black.

Non-Metallic Paint

The paint shall be a standard non-metallic - color.

AERIAL CORROSION PROTECTION

Internal structural members of the aerial structure shall be 100% concealed from oxygen or have corrosion protection applied. Totally sealed members are not subject to the possibility of corrosion attacking the metal from the interior.

The structural tubing of the aerial structure that contains drilled holes or is exposed to outside air and elements shall be protected to eliminate the possibility of corrosion occurring on the inside of the tube. No exceptions as this is imperative to the strength and integrity of the aerial structure.

The interior of exposed tubing shall be coated with a compound labeled NWAC 120-4. The application of the coating shall be applied after the welding process of the aerial structure is complete and shall cover 100% of the interior of the structural tube. NWAC 120-4 is an effective cavity corrosion inhibitor that provides long-term protection for both ferrous and non-ferrous metals. The resulting water-repellent, flexible, air-dried film has crevice penetrating, spreading and clinging characteristics. The product dries to a nearly transparent film and provides maximum corrosion protection for all void spaces subject to humidity and condensation.

AERIAL LADDER EGRESS PAINT COLOR

The aerial ladder egress shall be painted with High Solids polyurethane enamel paint. The color shall be red.

AERIAL LADDER SIGN PAINT COLOR

The aerial ladder signs, mounted on the base section, shall be painted the same color as the aerial ladder.

UNDERCOATING

The apparatus shall undergo a two-step undercoating process. The first step shall be a rubberized polyurethane base compound applied after the body has been primed. The materials used incorporate unused paint products to reduce the amount of waste released into the environment. This coat shall be applied to all hidden pockets and surfaces that are not visible after completion.

As a final step, the entire underside of the body shall be coated with a bituminous based automotive type undercoating when the apparatus is completed. During this application, special care shall be taken to avoid spraying the product on air lines, cables, or other items that would hinder normal maintenance.

CORROSION PREVENTION

One (1) 3.75 ounce tube of Electrolysis Corrosion Kontrol (ECK) shall be provided to use when additional items are mounted to the apparatus. ECK protects aluminum and stainless steel against electrolytic reaction, isolates dissimilar metals and gives bedding protection for hardware and fasteners. ECK contains an anti-seizing lubricant for threads. ECK is dielectric and perfect for use with electrical connectors.

THERMOPLASTIC COATING

In designated areas, Bedliner Coating XS-350, a two-component spray-in-place thermoplastic polyurethane system shall be used for maximum protection of the body and equipment. Bedliner Coating XS-350 is a 100% high-performance aromatic solids pure Polyurea elastomeric membrane. The coating shall be a fast cure, textured surface, multi-purpose material designed for commercial and industrial applications. It shall adhere to the body and serve as a protective, abrasion resistant liner where applied.

The coating shall exhibit the following minimum typical physical properties: Tensile strength - 3,432 PSI (ASTM D-412)
Elongation - 162% (ASTM D-412)
Tear Strength - 783 PLI (ASTM D-624) Shore D
Hardness - 60 +/-1 (ASTM D-2240)

SAMPLE PAINT CARD

One (1) sample paint card shall be provided with the apparatus. The card shall show an example of the apparatus body color on one side and have the specific paint formula printed on the reverse side.

REFLECTIVE STRIPING - STABILIZER BEAMS

Retroreflective striping, utilizing a chevron pattern, shall be installed on the front and rear sides of the two (2) horizontally extending stabilizer beams for increased visibility when extended. The striping shall be 4" wide and white in color.

CHEVRON COLOR - RED/FLUORESCENT YELLOW-GREEN

The chevron striping shall consist of red, 3M part number 1172 EC, and fluorescent yellow-green, 3M part number 3983, and shall meet the chevron color requirements in accordance with NFPA, current edition.

Only 3M Diamond Grade VIP Reflective Striping shall be used. 3M Diamond Grade VIP Reflective Striping is a wide-angle prismatic lens reflective sheeting designed for the production of durable traffic control signs and delineators that are exposed vertically in service. This sheeting is designed to provide higher sign brightness than sheeting's that use glass bead lenses. It is intended to also provide high sign brightness in the legibility distance where other sheeting's do not. If something other than 3M is being used, third party documentation must be provided with the bid to prove it is compliant with Federal DOT and NFPA, current edition.

CHEVRON STRIPING - REAR BODY

Retroreflective striping shall cover at least 50% of the rear-facing vertical surfaces in accordance with NFPA, current edition. The striping shall be in a chevron pattern sloping downward and away from the centerline of the apparatus at an angle of 45 degrees. Each stripe shall be a minimum of 6" in width. The striping shall consist of a solid base layer of reflective material and alternate between the exposed base layer material and durable, transparent, acrylic colored film.

The chevron pattern shall include rear face of the body. The torque box door shall be excluded from the chevron reflective striping.

GENERAL TWO (2) YEARS or 36,000 MILES LIMITED WARRANTY

Purchaser shall receive a General Two (2) Years or 36,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0002. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

BODY STRUCTURE (ALUMINUM) TEN (10) YEARS or 100,000 MILES LIMITED WARRANTY

Purchaser shall receive a Body Structure (Aluminum) Ten (10) Years or 100,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0502. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

AERIAL LADDER STRUCTURE TWENTY (20) YEARS or 100,000 MILES LIMITED WARRANTY

Purchaser shall receive a Aerial Ladder Structure Twenty (20) Years or 100,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0403. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

AERIAL LEAK-FREE HYDRAULICS THREE (3) YEARS or 48,000 MILES LIMITED WARRANTY

Purchaser shall receive a Aerial Leak-Free Hydraulics Three (3) Years or 48,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0421. The warranty certificate is incorporated by reference into this proposal and included with this proposal or available upon request.

AERIAL WATERWAY TEN (10) YEARS or 100,000 MILES LIMITED WARRANTY

Purchaser shall receive a Aerial Waterway Ten (10) Years or 100,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0810. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

ELECTRICAL TWO (2) YEARS or 36,000 MILES LIMITED WARRANTY

Purchaser shall receive a Electrical Two (2) Years or 36,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0202. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

PLUMBING AND PIPING (STAINLESS STEEL) TEN (10) YEARS or 100,000 YEARS LIMITED WARRANTY

Purchaser shall receive a Plumbing and Piping (Stainless Steel) Ten (10) Years or 100,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0800. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

WATER TANK WARRANTY

The tank shall be complete with a lifetime warranty. The tank manufacturer shall mark the tank and furnish notice that indicates proof of warranty. Full details shall be provided in the complete warranty document.

PAINT AND FINISH (EXTERIOR CLEAR COATED) TEN (10) YEARS LIMITED WARRANTY

Purchaser shall receive a Paint and Finish (Exterior Clear coated) Ten (10) Years limited warranty in accordance with, and subject to, warranty certificate RFW0710. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

PUMP WARRANTY

The fire pump shall be warranted by Waterous for a period of seven (7) years from the date of delivery to the fire department or seven and one-half (7-1/2) years from the shipment date by Waterous, whichever period expires first. Full details shall be provided in the complete warranty document.

DEALER UP FIT ITEMS:

The following items and equipment specified below are included in our proposal. These items will be provided and completed by CSI at our Grayling facility after the final inspection is completed at the Spartan facility in Snyder, NE.

HALF DEPTH SHELVES

Each shelf shall be fabricated from 3/16 inch smooth aluminum sheet material with a formed 2 inch lip on the front and back. Each shelf shall included a pair of side mounting plates for adjustable shelf installation. Black drain tiles to be installed in tray

To be located in the following locations: L-1, L-4, R-1, R-4

FLOOR MOUNTED ROLL OUT TRAY

Each tray shall be fabricated of 3/16 inch thick smooth aluminum sheet material with formed 3 inch side flanges on all four side, corner welded for maximum strength. Each tray shall have heavy duty 22 inch long locking ball bearing slide assemblies attached to each side of the tray. The slides lock-in / lock-out mechanisms shall be actuated with a front drawer release system (FDR). Black drain tiles to be installed in floor mounted tray

The tray shall have a 300# capacity and 100% extension.

To be located in the following locations: L-1, L-4, R-1, R-4

ADJUSTABLE ROLL OUT TRAY

Each tray shall be fabricated of 3/16 inch thick smooth aluminum sheet material with formed 3 inch side flanges on all four side, corner welded for maximum strength. Each tray shall have heavy duty 22 inch long locking ball bearing slide assemblies attached to each side of the tray. The slides lock-in / lock-out mechanisms shall be actuated with a front drawer release system (FDR). Black drain tiles to be installed in adjustable mounted tray

The tray shall have a 300# capacity and 100% extension.

To be located in the following locations: L-1, L-4, R-1, R-4

SWING OUT TOOL BOARD

Aluminum tool board(1) shall be provided as follows. Each tool board shall be fabricated with 3/16 inch smooth aluminum with a DA finish.

One (1) swing out tool board shall be mounted to the forward portion of the compartment of the L-2 compartment

WALL MOUNTED TOOL BOARD

Aluminum tool board(1) shall be provided as follows. Each tool board shall be fabricated with 3/16" 5052-H32 smooth aluminum upper compartment back wall tool boards, DA sanded finish, radius corners.

To be located in the following locations: L-1, L-3, L-4, R-1, R-2, R-3, R-4

EMS REAR WALL CABINET

A cabinet shall be fabricated for installation located in the middle of the wall behind the passenger seat. This compartment shall measure approximately 20.00 inches wide X 43.00 inches high X 17.00 inches deep. The compartment shall include solid aluminum walls with an interior access point, rear facing. The interior access provision shall have an approximate door opening of 16.00 inches wide x 37.00 inches high. The compartment shall be provided with a The compartment shall have netting on the front to secure equipment. The compartment shall include four (4) aluminum Unistrut channels, two (2) on each interior side wall of the compartment for use with shelving and other equipment mounting. The mid EMS compartment exterior surfaces shall feature a multi-tone finish.

The EMS compartment interior shall feature a multi tone painted finish.

EMS COMPARTMENT SHELVING

EMS compartment shall include a aluminum shelf with shelf brackets. Each shelf shall include a 1.00 inch lip at the front and back edges. Each shelf shall be finished with a multi tone painted finish.

REAR ENGINE TUNNEL EMS COMPARTMENT

A compartment shall be fabricated for installation behind the Spartan engine tunnel. The compartment back shall be cut to match the Spartan engine tunnel contour. This compartment shall measure 39.50 inches wide X 32.00 inches high X 13.00 inches deep at the floor. The compartment shall include solid aluminum walls with a rear crew area facing interior access opening. The interior access opening shall be 35.50 inches wide x 28" high. The compartment upper and lower corners shall include a 2" x 2" x 3/16" aluminum angle for added strength and secure floor mounting. (Note the compartment does not have a floor, the cab floor will be the floor surface of the compartment. The top of the compartment shall include a continuous 2" lip around outer edges to form tray area on top of the compartment. Each rear corner of the top shall include a padded crew arm rest.

The compartment shall include two (2) aluminum Unistrut channels, one (1) on each interior side wall of the compartment for use with shelving and other equipment mounting. The Unistrut channels shall allow shelving to be adjusted to 12" above the floor.

The mid EMS compartment surfaces, interior and exterior shall feature a Black Onyx Zolatone finish.

CENTER CONSOLE

CSI Shall provide and install one (1) deluxe center console to be mounted on top of the engine tunnel. The finish shall match the interior of the cab.

WIRELESS HEAD SET SYSTEM

SetCom Liberator Max (4) Position Headset System with 16-channel base system, radio interface module for Motorola APX series mobile radio, (2) Radio Transmit Wireless Headsets, (2) Intercom Only Wireless Headsets, Charge Cables, (4) Headset Hangers

PORTABLE GEAR LIGHT

STREAMLIGHT SURVIVOR PIVOT
91802

Survivor Pivot - 120V/100V AC/12V DC (Alkaline battery carrier not included) – Orange
(2) Shall be provided and mounted as directed by the purchasing authority

PORTABLE HAND LIGHT

STREAMLIGHT VULCAN CLUTCH
44365

Vulcan

Clutch Vehicle Mount System - 12V DC - Includes quick release shoulder strap - Orange
(4) Shall be provided and mounted as directed by the purchasing authority

3 GAS MONITOR

There shall be (1) Qrae 3 gas monitor non wireless provided and installed as directed by the purchasing authority
(1) to be provided

HYDRANT GATE VALVE

KOCHEK 2.5" GATE VALVE Part #:09K25125M-H52 Gate valve 2.5 NH SW LH F X 2.5 NH M
Kochek 2.5" Hydrant valve
(1) to be provided

GATED WYE

Kochek gated wye Part #:26K1525-H52 NH M X 2.5 NH SW RL F
Kochek 2-Way ball valve (2) 1.5" Male x (1) 2.5" Female
(1) to be provided

STOKES BASKET

CMC titanium stokes/rescue litter,
(2) to be provided

BATTERY OPERATED REPROCIATING SAW

Dewalt battery operated sawzall 20V MAX Cordless Reciprocating Saw, lithium ion 6.0 ah battery,
(1) to be provided

BATTERY OPERATED GRINDER

Dewalt battery operated side grinder 20V MAX XR Cordless Brushless 4.5 in. Paddle Switch
Small Angle Grinder with Kickback Brake, lithium ion 6.0 ah battery
(1) to be provided

PORTABLE SCENE LIGHT

STREAMLIGHT 46000 Portable Scene Light II - 120V AC/12V DC – Red
(1) to be provided

BATTERY POWERED PPV FAN

SuperVac 18" V18-BD-12-SP 18" PPV, 2x 12 Ah Bat., 2x AC Chargers, Shore Power
(1) to be provided

VENT SAW

Stihl 462 vent saw, MS 462 R C-M Saw with the 20" bar, Depth Limiter, Extra chain
(1) to be provided

STEP CHOCKS

Set of Turtle plastics step chocks
(1) set shall be provided

ROPE BAG

Sterling Carrier Rope Bags
(2) shall be provided

RESCUE ROPE

Sterling 11 mm SafetyPro Static Rope 200' rescue rope
(2) shall be provided

RESCUE HARNESS

Yates 387P Rope Access Professional Harness
(1) shall be provided

CROSSLAY LEADER HOSE

Mercedes MTFS-800 10' leader hose for the cross lays
(3) shall be provided, 2- 1-3/4" & 1- 2-1/2"

HYDRANT BAG

R&B Fabrications Hydrant bag. 443RD TOOL BAG
(1) shall be provided

REMOVAL OF FORWARD FACING CREW SEATS

The crew area forward facing seats shall be removed and made available to the customer to allow for the EMS compartment

GRAPHICS/ LETTERING

The apparatus lettering shall be provided and installed by the CSI Emergency Apparatus prior to final delivery as directed by the fire department

PUMP COMPARTMENT HEATER

A 30,000 BTU auxiliary heater shall be provided and installed inside the pump compartment. The heater shall be connected to the engine cooling system with gated valves located inside the engine compartment. A toggle switch and green LED indicator light shall be provided on the operator's pump control panel. The switch shall be of a weather resistant type.

HEAT PAN

There shall be a heat pan enclosure installed under the apparatus fire pump.

The heat pan assembly shall be fabricated of 3/16 inch aluminum. The top portion shall be bolted in place. The enclosure shall have two slide out trays; one on each side of the apparatus for ease of service and maintenance. The bottom trays shall be held in the place with mechanical style latch devices.

CUSTOMER CONTINGENCY

A contingency amount of \$20,000 shall be included in the total bid price. This contingency will be used for tools and equipment along with dealer upfit items not specified. Any unused monies will be credited back to the purchasing authority.

S-180-AERIAL		77" UNIT	
MODEL	77" PEAR MOUNT AERIAL (S23RL-77)	DATE	12/23/24
SCALE	1/2" = 1'	CL	
SHEET	24" X 36"	REV	07
DATE	12/23/24		

OTHER BUSINESS

PUBLIC COMMENTS

BOARD MEMBER COMMENTS

ADJOURNMENT
