



BOARD OF TRUSTEES
Regular Meeting
August 10, 2016
7:00 p.m.

1. CALL MEETING TO ORDER
2. PLEDGE OF ALLEGIANCE
3. ROLL CALL
4. PUBLIC COMMENT: Restricted to three minutes regarding issues on this agenda
5. REPORTS/BOARD COMMENTS
6. APPROVAL OF AGENDA
7. CONSENT AGENDA
 - A. Communications
 - B. Minutes – July 27, 2016 - regular meeting
 - C. Bills
 - D. Payroll
 - E. Meeting Pay
 - F. Fire Reports
8. BOARD AGENDA
 - A. 2016 Sanitary Sewer Manhole Rehabilitation Recommendation
 - B. McKenna Service Agreement and Building Official Appointment
 - C. Building and Zoning Permitting Process: Discussion
9. EXTENDED PUBLIC COMMENT: Restricted to 5 minutes regarding any issue
10. FINAL BOARD MEMBER COMMENT
11. ADJOURNMENT

CHARTER TOWNSHIP OF UNION

Board of Trustees

Regular Meeting

A regular meeting of the Charter Township of Union Board of Trustees was held on July 27, 2016 at 7:00 p.m. at Union Township Hall.

Meeting was called to order at 7:00 p.m.

Roll Call

Supervisor Alwood, Clerk Henry, Treasurer Rice, Trustee Hauck, Lannen, Mielke, and Mikus were present.

Others Present

Mark Stuhldreher, Kim Smith, Sherrie Teall, Pat DePriest, Peter Gallinat, and Jennifer Loveberry

Public Comment – open 7:00 p.m.

No Comments

Reports/Board Comments

Lannen – Congratulations to Union Township Little League.

Mielke – Planning Commission updates: Bids received for Master Plan.

Mikus – Welcome to the new Township Manager, Mark Stuhldreher.

Approval of Agenda

Hauck moved Mikus supported to approve the agenda as presented. Vote: Ayes: 7 Nays: 0. Motion carried.

Consent Agenda

- A. Communications
 - Planning Commission Minutes
 - EDA Minutes
- B. Minutes – July 13, 2016-Regular Meeting
- C. Bills
- D. Payroll
- E. 2.5 Financial Conditions and Activities
- F. 2.510 Cash Flow Ratio

Mielke moved Lannen supported to approve the consent agenda as presented. Vote: Ayes: 7 Nays: 0. Motion carried.

BOARD AGENDA

A. Mary Senter / CARRS Township Resident Survey Presentation

Mary Senter / CARRS presented the 2016 Township Resident Survey to The Board of Trustees.

B. Indian Pines Ordinance Enforcement Agreement – Public Hearing

Public Hearing Open at 7:45 p.m.

Walter Carson, 5399 E. Valley Rd.: Concerns with people trespassing and/or parking on his property, and increased traffic on E. Valley Rd.

Public Hearing Closed at 8:04 p.m.

Discussion was held by the Board.

Mikus moved Lannen supported to adopt Ordinance 2016-02: Indian Pines Ordinance Enforcement Agreement. Roll Call Vote: Ayes: Supervisor Alwood, Treasurer Rice, Trustee Hauck, Lannen, and Mielke, and Mikus. Nays: Clerk Henry. Motion carried.

C. Well #7 – Isabella Road Well Site - Maintenance

Mielke moved Lannen supported to approve Well #7 – Isabella Road Well Site – Maintenance & Cleaning of (1)12” diameter well located at the Isabella Well Site awarded to Peerless Midwest in the amount of \$13,959.25. Vote: Ayes: 7 Nays: 0. Motion carried.

D. Office Security Project

Mielke moved Henry supported to postpone the project, authorizing the Township Manager follow through with project. Vote: Ayes: 7 Nays: 0. Motion carried.

E. Leave Transfer Policy

Henry moved Hauck supported to adopt the revised July 2016 Leave Transfer Policy. Vote: Ayes: 7 Nays: 0. Motion carried.

EXTENDED PUBLIC COMMENT - Open 8:36 p.m.

Jim Horton of the 4th District County Commission updated the board on the county government. Norm Woerle, 5685 Carriage Ln. – Welcomed Mark Stuhldreher to the Township and commented on Township operations.

Richard Jakubiec, Isabella County Drain Commissioner – Updates from the last 8 years at the Isabella County Drain Commission and asked for support for re-election.

Pat DePriest, Township Assessor – Tribunal Case updates.

FINAL BOARD MEMBER COMMENTS

Lannen – Commented on the Township Resident Survey results being very useful to the Township.

Mielke – Planning Commission happy to have results from Township Resident Survey for updating the Master Plan.

Alwood – Crawford Rd. Sidewalk updates.

ADJOURNMENT

Hauck moved Rice supported to adjourn the meeting at 9:03 p.m. Ayes: 7 Nays: 0. Motion carried.

APPROVED BY:

Margie Henry, Clerk

Russ Alwood, Supervisor

User: SHERRIE

CHECK DATE FROM 07/28/2016 - 08/10/2016

DB: Union

Check Date	Bank	Check	Vendor	Vendor Name	Amount
Bank 101 POOLED CHECKING					
08/01/2016	101	67(E)	01105	MASTERCARD	8,183.29
08/08/2016	101	68(E)	00146	CONSUMERS ENERGY PAYMENT CENTER	26,688.73
08/08/2016	101	69(E)	00146	VOID	0.00 V
08/05/2016	101	18579	01499	RUTH AYRIS	222.00
08/05/2016	101	18580	01451	CAROLINE BACOME	222.00
08/05/2016	101	18581	01407	VICTORIA BUSHONG	228.00
08/05/2016	101	18582	00168	CAROL DAVIS	198.00
08/05/2016	101	18583	01408	JULIE A ENGLER	222.00
08/05/2016	101	18584	01399	DUANE GOTTSCHALK	222.00
08/05/2016	101	18585	01400	MARJORIE GOTTSCHALK	222.00
08/05/2016	101	18586	01452	MARIANNE MCJAMES	219.00
08/05/2016	101	18587	01373	MERISSA J. RICE	297.50
08/05/2016	101	18588	01333	VIRGINIA RICHARDSON	308.00
08/05/2016	101	18589	01406	BONNIE SCHAEFFER	183.00
08/05/2016	101	18590	01405	KEN SCHAEFFER	186.00
08/05/2016	101	18591	01410	CINDY SMITH	269.50
08/05/2016	101	18592	01126	MARTY SIUDA	243.00
08/05/2016	101	18593	01450	SARA THERING	252.00
08/05/2016	101	18594	01336	CYNTHIA M VELDT-DIETSCH	273.00
08/05/2016	101	18595	00714	RUTH A WENTWORTH	259.00
08/05/2016	101	18596	01372	JOSEPH W YODER	273.00
08/05/2016	101	18597	01159	SUSAN K YODER	308.00
08/10/2016	101	18598	00020	JAMES ALWOOD	492.68
08/10/2016	101	18599	00043	ARROW UNIFORM	236.34
08/10/2016	101	18600	00084	B S & A SOFTWARE	6,483.00
08/10/2016	101	18601	01278	BERENDS, HENDRICKS, STUIT INSURANCE	655.00
08/10/2016	101	18602	00072	BLOCK ELECTRIC	1,537.79
08/10/2016	101	18603	00095	C & C ENTERPRISES, INC.	82.75
08/10/2016	101	18604	00791	JANE CHAFFEE	160.00
08/10/2016	101	18605	00129	CMS INTERNET, LLC	1,733.75
08/10/2016	101	18606	01186	COYNE PROPANE LLC	577.80
08/10/2016	101	18607	01242	CULLIGAN WATER	106.02
08/10/2016	101	18608	00994	CUSTOM HEATING & PLUMBING, INC	50.00
08/10/2016	101	18609	01171	DBI BUSINESS INTERIORS	3.99
08/10/2016	101	18610	00098	ELECTION SOURCE	88.80
08/10/2016	101	18611	01366	ENVIRONMENTAL SYSTEMS RESEARCH INS	1,000.00
08/10/2016	101	18612	00209	ETNA SUPPLY COMPANY	4,563.00
08/10/2016	101	18613	00249	GILL-ROY'S HARDWARE	63.90
08/10/2016	101	18614	00257	GOURDIE-FRASER, INC.	2,286.60
08/10/2016	101	18615	00262	GRAND TRAVERSE RUBBER SUPPLY	54.72
08/10/2016	101	18616	00281	MARGIE HENRY	138.85
08/10/2016	101	18617	00324	ISABELLA CORPORATION	700.00
08/10/2016	101	18618	01496	K&H CONCRETE CUTTING OF LANSING INC	325.00
08/10/2016	101	18619	00362	KRAPOHL FORD & LINCOLN	107.32
08/10/2016	101	18620	01300	LINDSAY SOFT WATER	16.75
08/10/2016	101	18621	01481	MICHIGAN ECONOMIC DEVELOPERS ASSOC	270.00
08/10/2016	101	18622	00462	MT. PLEASANT FENCE, SASH & DOOR	1,223.04
08/10/2016	101	18623	00466	MT. PLEASANT RENTAL CENTER	115.10
08/10/2016	101	18624	01136	OPTO SOLUTIONS, INC	2,299.97
08/10/2016	101	18625	00131	PERCEPTIVE CONTROLS, INC	700.40
08/10/2016	101	18626	01440	RESERVE ACCOUNT	2,500.00
08/10/2016	101	18627	01137	MARK ROCKAFELLOW	16.20
08/10/2016	101	18628	01254	LARRY M SOMMER	192.31
08/10/2016	101	18629	01111	STATE OF MICHIGAN - DEQ	666.00
08/10/2016	101	18630	01495	MARK STUHLREHER	1,694.74
08/10/2016	101	18631	01446	THRUN LAW FIRM P.C.	1,032.00
08/10/2016	101	18632	00668	UNITED PARCEL SERVICE	17.30
08/10/2016	101	18633	01013	USA BLUE BOOK	1,051.70
08/10/2016	101	18634	01314	VERIZON WIRELESS	484.42
08/10/2016	101	18635	01497	VERTALKA & VERTALKA, INC	825.00
08/10/2016	101	18636	00703	WASTE MANAGEMENT OF MICHIGAN, INC	1,134.29
08/10/2016	101	18637	00710	WEBB CHEMICAL SERVICE	4,375.56
08/10/2016	101	18638	01483	XEROX FINANCIAL SERVICES	1,495.00

101 TOTALS:

Total of 63 Checks:	81,036.11
Less 1 Void Checks:	0.00
Total of 62 Disbursements:	81,036.11

Check Date	Bank	Check	Vendor	Vendor Name	Description	Amount
Bank 101 POOLED CHECKING						
08/01/2016	101	67 (E)	01105	MASTERCARD	MASTERCARD DEPRIEST	448.73
					MASTERCARD SMITH K	458.98
					MASTERCARD ROCKAFELLOW	426.64
					MASTERCARD DEARING	742.36
					MASTERCARD BEBOW	1,452.34
					MASTERCARD TAYLOR	72.30
					MASTERCARD CRAWFORD	146.87
					MASTERCARD FUSSMAN	367.20
					MASTERCARD MCPHERSON	194.42
					MASTERCARD WALDRON	31.41
					MASTERCARD ALWOOD	61.67
					MASTERCARD MARTINEZ	74.05
					MASTERCARD MCBRIDE	3,706.32
						<u>8,183.29</u>
08/08/2016	101	68 (E)	00146	CONSUMERS ENERGY PAYMENT CENTER	2180 S LINCOLN RD	37.16
					1776 E PICKARD RD	295.48
					ELECTRIC 2010 S LINCOLN RD	695.40
					4511 E RIVER RD	10,803.81
					2279 S MERIDIAN RD PUMP HOUSE	18.55
					2279 S MERIDIAN RD	1,972.80
					1046 S MISSION ST	87.98
					5319 E AIRPORT RD	35.67
					800 CRAIG HILL RD	42.66
					4520 E RIVER RD	72.58
					1605 SCULLY RD	30.63
					1633 S LINCOLN RD	120.68
					2495 E DEERFIELD RD	81.03
					1876 PACKARD RD	44.51
					2188 E PICKARD RD	74.36
					2424 W MAY ST	175.19
					4795 S MISSION ST	2,495.59
					4797 S MISSION ST	182.67
					5076 S MISSION RD	438.81
					5228 S ISABELLA RD	7,050.45
					4822 ENCORE BLVD	119.05
					3998 E DEERFIELD RD	50.65
					5369 S CRAWFORD RD	44.39
					3248 S CONCOURSE DR	77.08
					2010 S LINCOLN RD	44.93
					STREET LIGHTS	1,538.46
					4244 E BLUE GRASS RD	58.16
						<u>26,688.73</u>
08/08/2016	101	69 (E)	00146	VOID		
				Void Reason: Created From Check Run Process		
08/05/2016	101	18579	01499	RUTH AYRIS	ELECTION WORK	222.00
08/05/2016	101	18580	01451	CAROLINE BACOME	ELECTION WORK	222.00
08/05/2016	101	18581	01407	VICTORIA BUSHONG	ELECTION WORK	228.00
08/05/2016	101	18582	00168	CAROL DAVIS	ELECTION WORK	198.00
08/05/2016	101	18583	01408	JULIE A ENGLER	ELECTION WORK	222.00
08/05/2016	101	18584	01399	DUANE GOTTSCHALK	ELECTION WORK	222.00
08/05/2016	101	18585	01400	MARJORIE GOTTSCHALK	ELECTION WORK	222.00
08/05/2016	101	18586	01452	MARIANNE MCJAMES	ELECTION WORK	219.00
08/05/2016	101	18587	01373	MERISSA J. RICE	ELECTION WORK	297.50

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08/05/2016	101	18588	01333	VIRGINIA RICHARDSON	ELECTION WORK	308.00
08/05/2016	101	18589	01406	BONNIE SCHAEFFER	ELECTION WORK	183.00
08/05/2016	101	18590	01405	KEN SCHAEFFER	ELECTION WORK	186.00
08/05/2016	101	18591	01410	CINDY SMITH	ELECTION WORK	269.50
08/05/2016	101	18592	01126	MARTY SIUDA	ELECTION WORK	243.00
08/05/2016	101	18593	01450	SARA THERING	ELECTION WORK	252.00
08/05/2016	101	18594	01336	CYNTHIA M VELDT-DIETSCH	ELECTION WORK	273.00
08/05/2016	101	18595	00714	RUTH A WENTWORTH	ELECTION WORK	259.00
08/05/2016	101	18596	01372	JOSEPH W YODER	ELECTION WORK	273.00
08/05/2016	101	18597	01159	SUSAN K YODER	ELECTION WORK	308.00
08/10/2016	101	18598	00020	JAMES ALWOOD	MERIDIAN RD WELL SITE	492.68
08/10/2016	101	18599	00043	ARROW UNIFORM	UNIFORMS	45.68
					UNIFORMS	73.70
					UNIFORMS	44.50
					UNIFORMS	72.46
						<u>236.34</u>
08/10/2016	101	18600	00084	B S & A SOFTWARE	ANNUAL SERVICE / SUPPORT FEE PER CONTRA	6,483.00
08/10/2016	101	18601	01278	BERENDS, HENDRICKS, STUIT INSURANCE	BONDING REQUIRED RURAL DEV BOND	655.00
08/10/2016	101	18602	00072	BLOCK ELECTRIC	MERIDIAN WELL SITE REPAIRS	1,027.79
					MERIDIAN WELL SITE REPAIRS	510.00
						<u>1,537.79</u>
08/10/2016	101	18603	00095	C & C ENTERPRISES, INC.	SUPPLIES	32.50
					OPERATING SUPPLIES	50.25
						<u>82.75</u>
08/10/2016	101	18604	00791	JANE CHAFFEE	FLEX REIMBURSEMENT-8-4-16	160.00
08/10/2016	101	18605	00129	CMS INTERNET, LLC	COMPUTER ERRORS ASST ASSESSOR	475.00
					PRINTER SET UP MANAGER	23.75
					SERVER ISSUES-ONSITE SUPPORT	1,092.50
					OPTO CONTROLLER HELP AT ISABELLA	142.50
						<u>1,733.75</u>
08/10/2016	101	18606	01186	COYNE PROPANE LLC	PROPANE	577.80
08/10/2016	101	18607	01242	CULLIGAN WATER	WATER	106.02
08/10/2016	101	18608	00994	CUSTOM HEATING & PLUMBING, INC	DEHUMIDIFIER SERVICE	50.00
08/10/2016	101	18609	01171	DBI BUSINESS INTERIORS	TOWNSHIP SUPPLIES	3.99
08/10/2016	101	18610	00098	ELECTION SOURCE	ELECTION SUPPLIES	88.80
08/10/2016	101	18611	01366	ENVIRONMENTAL SYSTEMS RESEARCH INS	COMPUTER HARDWARE & SOFTWARE	1,000.00
08/10/2016	101	18612	00209	ETNA SUPPLY COMPANY	BIOXIDE	4,563.00
08/10/2016	101	18613	00249	GILL-ROY'S HARDWARE	OPERATING SUPPLIES	17.17
					OPERATING SUPPLIES	5.59
					LEAF RAKE	14.99
					TOILET LEVER	5.99
					PAINTING SUPPLIES	10.98
					BLEACH	9.18
						<u>63.90</u>
08/10/2016	101	18614	00257	GOURDIE-FRASER, INC.	PUMPSTATION #3 BID PKG	2,286.60
08/10/2016	101	18615	00262	GRAND TRAVERSE RUBBER SUPPLY	OPERATING SUPPLIES	54.72
08/10/2016	101	18616	00281	MARGIE HENRY	REIMBURSEMENT FOOD FOR ELECTION	138.85
08/10/2016	101	18617	00324	ISABELLA CORPORATION	PLAYGROUND SAND/TOPSOIL FOR PARK DITCH	700.00
08/10/2016	101	18618	01496	K&H CONCRETE CUTTING OF LANSING INC	CURB CUTTING-FRONT OF HUNTER'S ALE HOUS	325.00

Check Date	Bank	Check	Vendor	Vendor Name	Description	Amount
08/10/2016	101	18619	00362	KRAPOHL FORD & LINCOLN	OIL CHANGE RENTAL INSPECTOR TRUCK OIL CHANGE	35.41 71.91 <u>107.32</u>
08/10/2016	101	18620	01300	LINDSAY SOFT WATER	TOWNSHIP HALL SALT DELIVERY CREDIT MEMO-PAID 5-12-15 INVOICE TWICE	21.00 (4.25) <u>16.75</u>
08/10/2016	101	18621	01481	MICHIGAN ECONOMIC DEVELOPERS ASSOC	MEDA ANNUAL MEMBERSHIP	270.00
08/10/2016	101	18622	00462	MT. PLEASANT FENCE, SASH & DOOR	CHAIN LINK FENCE	1,223.04
08/10/2016	101	18623	00466	MT. PLEASANT RENTAL CENTER	JAMESON HALL FLOOR	115.10
08/10/2016	101	18624	01136	OPTO SOLUTIONS, INC	OPTO 22 MAINTENANCE TREATMENT PLANT #1 MAINTNENCE	1,373.30 926.67 <u>2,299.97</u>
08/10/2016	101	18625	00131	PERCEPTIVE CONTROLS, INC	MAINTENANCE BROADWAY TOWER MERIDIAN WEL	700.40
08/10/2016	101	18626	01440	RESERVE ACCOUNT	RELOAD POSTAGE METER RESERVE ACCOUNT	2,500.00
08/10/2016	101	18627	01137	MARK ROCKAFELLOW	MILEAGE REIMBURSEMENT	16.20
08/10/2016	101	18628	01254	LARRY M SOMMER	FLEX REIMBURSEMENT 7-28-16	192.31
08/10/2016	101	18629	01111	STATE OF MICHIGAN - DEQ	WATER SAMPLE LAB ANALYSIS	666.00
08/10/2016	101	18630	01495	MARK STUHLBREHER	RELOCATION COST REIMBURSEMENT	1,694.74
08/10/2016	101	18631	01446	THRUN LAW FIRM P.C.	REVIEW OF MTT CASES - JULY 2016	1,032.00
08/10/2016	101	18632	00668	UNITED PARCEL SERVICE	SHIPPING	17.30
08/10/2016	101	18633	01013	USA BLUE BOOK	SUPPLIES CHLORINE	800.13 251.57 <u>1,051.70</u>
08/10/2016	101	18634	01314	VERIZON WIRELESS	CELL PHONE SERVICE 6-16 - 7-15	484.42
08/10/2016	101	18635	01497	VERTALKA & VERTALKA, INC	APPRAISAL SERVICES FOR MTT CASE	825.00
08/10/2016	101	18636	00703	WASTE MANAGEMENT OF MICHIGAN, INC	2010 LINCOLN RD MCDONALD PARK 5142 BUD ST 4511 RIVER RD 5228 ISABELLA 4795 MISSION	51.87 156.40 101.53 717.11 63.24 44.14 <u>1,134.29</u>
08/10/2016	101	18637	00710	WEBB CHEMICAL SERVICE	CHLORIDE	4,375.56
08/10/2016	101	18638	01483	XEROX FINANCIAL SERVICES	LEASE PAYMENT-JULY 2016	1,495.00 <u>1,495.00</u>

101 TOTALS:

Total of 63 Checks:	81,036.11
Less 1 Void Checks:	0.00
Total of 62 Disbursements:	<u>81,036.11</u>

Charter Township of Union Payroll
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CHECK DATE: July 14, 2016
PPE: July 9, 2016

NOTE: CHECK TOTAL FOR TRANSFER

Gross Payroll	\$ 50,934.75
Employer Share Med	732.63
Employer Share SS	3,132.80
SUI	196.94
Pension-Employer Portion	3,234.30
Workers' Comp	541.34
Life/LTD	-
Dental	-
Health Care	-
Cobra/Flex Administration	102.05
PCORI Fee	49.91
Total Transfer to Payroll checking	<u>\$ 58,924.72</u>

NOTE: PAYROLL TRANSFER NEEDED

General Fund	\$ 23,896.77
EDDA	-
WDDA	-
Sewer Fund	19,726.05
Water Fund	15,301.90
Total To Transfer from Pooled Savings	<u>\$ 58,924.72</u>

**CHARTER TOWNSHIP OF UNION
BOARD MEETING ATTENDANCE RECORD
2016**

BOARD MEMBER: Russ Alwood

DATE: March 2016

Date	Meeting	Time Attended		Total
		1hr or less	More than 1 Hr.	
3/16/16	Council of Government	✓		50.00

Signature: 

1. This form is filled out by the board member and turned into the Accountant prior to the last pay period of the month. The Accountant will send out a notice via email so everyone knows when it is due each month.
2. Only list those meetings that you have attended.
3. You are required to list the amount of meeting time you were in attendance. The amount paid is subject to the time you spent during the actual meeting. As published in the 2013 budget, 1 to 60 minutes is reimbursed at \$50. Anything greater than 60 minutes is reimbursed at \$75.
4. Attendances at all day conferences/sessions are reimbursed as one meeting at \$75.

**CHARTER TOWNSHIP OF UNION
BOARD MEETING ATTENDANCE RECORD
2016**

BOARD MEMBER: Russ Ahwood

DATE: May 2016

Date	Meeting	Time Attended		Total
		1hr or less	More than 1 Hr.	
3/18/16	Council of Government	✓		58.00

Signature: Russ Ahwood

1. This form is filled out by the board member and turned into the Accountant prior to the last pay period of the month. The Accountant will send out a notice via email so everyone knows when it is due each month.
2. Only list those meetings that you have attended.
3. You are required to list the amount of meeting time you were in attendance. The amount paid is subject to the time you spent during the actual meeting. As published in the 2013 budget, 1 to 60 minutes is reimbursed at \$50. Anything greater than 60 minutes is reimbursed at \$75.
4. Attendances at all day conferences/sessions are reimbursed as one meeting at \$75.

**CHARTER TOWNSHIP OF UNION
BOARD MEETING ATTENDANCE RECORD
2016**

BOARD MEMBER: Russ Alwood

DATE: 6/21/2016

Date	Meeting	Time Attended		Total
		1hr or less	More than 1 Hr.	
6/21/16	EDA Meeting	✓		50.00

Signature: Russell Alwood

- 1.This form is filled out by the board member and turned into the Accountant prior to the last pay period of the month. The Accountant will send out a notice via email so everyone knows when it is due each month.
- 2.Only list those meetings that you have attended.
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- 4.Attendances at all day conferences/sessions are reimbursed as one meeting at \$75.

**CHARTER TOWNSHIP OF UNION
BOARD MEETING ATTENDANCE RECORD
2016**

BOARD MEMBER: Russ Alwood

DATE: July

Date	Meeting	Time Attended		Total
		1hr or less	More than Hr	
7/19/16	E.D.A.		✓	75.00

SIGNATURE: Russ Alwood

1. This form is filled out by the board member and turned into the Finance Director. Completed requests will be added to the consent agenda for approval at the next regular board meeting. After board approval, payment will be added to the next regular payroll process.
2. Only list those meetings that you have attended. You are required to list the amount of meeting time you were in attendance. The amount paid is subject to the time you spent during the actual meeting. 1 to 60 minutes is reimbursed at \$50. Anything greater than 60 minutes is reimbursed at \$75.
3. Attendances at all day conferences/sessions are reimbursed as one meeting at \$75.

Mount Pleasant Fire Department

Fire Experience Report For Union Township/City of Mt. Pleasant
Period - July 4, 2016 through July 10, 2016

Category	Code	Description	Twp	Resp	City
Fire	100	Fire, Other			
	111	Building Fire			
	112	Fires in Structures other than a Building			
	113	Cooking Fire			
	114	Chimney or Flue Fire			
	116	Fuel Burner/Boiler Malfunction			
	131	Passenger Vehicle Fire			
	132	Road freight or transport vehicle fire			
	136	Self-propelled Motor Home/Recreational			
	138	Off-road vehicle of heavy equipment fire			
	140	Natural Vegetation Fire			
	143	Grass/Brush fire	2	19	
	150	Outside Rubbish Fire, other			
	151	Outside Rubbish Fire, trash or waste fire			
	154	Dumpster Fire	1	9	
	160	Special Outside Fire, Other			
Overpressure Rupture, (No Fire)	251	Excessive heat, scorch burns with no fire			
	231	Chemical reaction rupture of process vessel			
Rescue & EMS Incident	300	Rescue, EMS incident, other			
	311	Medical Assist to EMS Crew	1	3	1
	321	EMS Call excluding Veh. Accident			3
	322	Motor Vehicle Acc. W/ Injuries			
	323	Motor Vehicle Acc/Pedestrian			
	324	Motor Vehicle Acc. W/no Injuries	1	2	1
	331	Lock-In (If lock out use 551)			
	342	Search for Person in Water			
	352	Extrication of Victim (s) from vehicle			
	353	Remove Victim from Stalled Elevator			
	360	Water & Ice-related Rescue, Other			
	361	Swimming /recreational water area rescue			
3811	Technical rescue standby				
Hazardous Condition (No Fire)	400	Hazard condition other			
	410	Combustible/Flammable Gas Condition			
	411	Gasoline or Other Flammable Spill			
	412	Gas Leak			
	413	Oil of Combustible Liquid Spill			
	424	Carbon Monoxide Incident			1
	440	Electric Wiring/Equipment Problem			
	441	Heat from Short Circuit			
	442	Overheated Motor			
	443	Breakdown of Light Ballast			
444	Power Line Down			3	
445	Arcing, shorted electrical equipment				
462	Aircraft Standby				

	463	Vehicle Accident, general cleanup			
	480	Attempted burning, illegal action, other			
	4441	Utility Line Down			
Service Call	500	Service Call - Other			
	510	Person in Distress			
	511	Lock-out			
	512	Ring or Jewelry removal			
	520	Water Problem, Other			
	521	Water Evacuation			
	522	Water of Steam Leak			
	531	Smoke or Odor Removal			
	542	Animal Rescue			
	552	Police Matter			
	553	Public Service			
	561	Unauthorized Burning			
	571	Cover assignment, standby, moveup			
Good Intent Call	600	Good Intent Call, Other			
	611	Dispatched and Cancelled en route			
	622	No Incident Found on Arrival			
	631	Authorized controlled burning			
	650	Steam, gas mistaken for smoke,			
	651	Smoke Scare, Odor of Smoke			
	671	HazMat Investigation, no HazMat			
False Alarm & False Call	700	False Alarm, Other			
	710	Malicious, mischievous false call, other			
	715	Local Alarm System, Malicious False Alarm			
	730	System Malfunction			
	731	Sprinkler activation due to malfunction			
	732	Extinguishing System Activation - Malfunction			
	733	Smoke Det. Activation - Malfunction			1
	734	Heat Detector Activation - Malfunction			
	735	Alarm system sounded due to malfunction	1	2	
	736	CO detector activation due to malfunction			
	740	Unintentional transmission of alarm, other			
	741	Sprinkler activation, no fire			
	743	Smoke Det. Activation - Unintentional	2	5	
	744	Detector activation, no fire			
	745	Alarm System Act. - Unintentional	1	3	
	746	Carbon Monoxide Activation, NO CO			
Severe Weather	813	Wind Storm, Tornado/Hurricane Assessment			
Special Incident Type	911	Citizen Complaint			
	9003	Affidavit Issued			
		Total Response for Union Twp/City	11	43	10

 Emergency - MPFD

 Emergency - MPFD Secondary to MMR

 Non - Emergency

Mount Pleasant Fire Department

Fire Experience Report For Union Township/City of Mt. Pleasant
Period - July 11, 2016 through July 17, 2016

Category	Code	Description	Twp	Resp	City
Fire	100	Fire, Other			
	111	Building Fire			1
	112	Fires in Structures other than a Building			
	113	Cooking Fire			
	114	Chimney or Flue Fire			
	116	Fuel Burner/Boiler Malfunction			
	131	Passenger Vehicle Fire	1	15	
	132	Road freight or transport vehicle fire			
	136	Self-propelled Motor Home/Recreational			
	138	Off-road vehicle of heavy equipment fire			
	140	Natural Vegetation Fire			
	143	Grass/Brush fire			
	150	Outside Rubbish Fire, other			
	151	Outside Rubbish Fire, trash or waste fire			
	154	Dumpster Fire			
	160	Special Outside Fire, Other			1
Overpressure Rupture, (No Fire)	251	Excessive heat, scorch burns with no fire			
	231	Chemical reaction rupture of process vessel			
Rescue & EMS Incident	300	Rescue, EMS incident, other			
	311	Medical Assist to EMS Crew			
	321	EMS Call excluding Veh: Accident	1	3	2
	322	Motor Vehicle Acc. W/ Injuries	1	10	2
	323	Motor Vehicle Acc/Pedestrian			1
	324	Motor Vehicle Acc. W/no Injuries			
	331	Lock-In (If lock out use 551)			
	342	Search for Person in Water			
	352	Extrication of Victim (s) from vehicle			
	353	Remove Victim from Stalled Elevator			
	360	Water & Ice-related Rescue, Other			
	361	Swimming /recreational water area rescue			
	3811	Technical rescue standby			
Hazardous Condition (No Fire)	400	Hazard condition other			
	410	Combustible/Flammable Gas Condition			
	411	Gasoline or Other Flammable Spill			1
	412	Gas Leak (natural gas or LPG)			1
	413	Oil of Combustible Liquid Spill			
	424	Carbon Monoxide Incident			1
	440	Electric Wiring/Equipment Problem			
	441	Heat from Short Circuit			
	442	Overheated Motor			
	443	Breakdown of Light Ballast			
	444	Power Line Down		2	
445	Arcing, shorted electrical equipment			1	
451	Biological hazard, confirmed or suspected			1	

	462	Aircraft Standby			
	463	Vehicle Accident, general cleanup			
	480	Attempted burning, illegal action, other			
	4441	Utility Line Down			1
Service Call	500	Service Call - Other			
	510	Person in Distress			
	511	Lock-out			
	512	Ring or Jewelry removal			
	520	Water Problem, Other			
	521	Water Evacuation			
	522	Water of Steam Leak			
	531	Smoke or Odor Removal			
	542	Animal Rescue			
	552	Police Matter			
	553	Public Service			
	561	Unauthorized Burning			
	571	Cover assignment, standby, moveup			
Good Intent Call	600	Good Intent Call, Other			
	611	Dispatched and Cancelled en route			
	622	No Incident Found on Arrival			
	631	Authorized controlled burning			
	650	Steam, gas mistaken for smoke,			
	651	Smoke Scare, Odor of Smoke			
	671	HazMat Investigation, no HazMat			
False Alarm & False Call	700	False Alarm, Other			
	710	Malicious, mischievous false call, other			1
	715	Local Alarm System, Malicious False Alarm			
	730	System Malfunction			
	731	Sprinkler activation due to malfunction			
	732	Extinguishing System Activation - Malfunction			
	733	Smoke Det. Activation - Malfunction		4	1
	734	Heat Detector Activation - Malfunction			
	735	Alarm system sounded due to malfunction		3	
	736	CO detector activation due to malfunction			
	740	Unintentional transmission of alarm, other			1
	741	Sprinkler activation, no fire			
	743	Smoke Det. Activation - Unintentional		2	
	744	Detector activation, no fire			
	745	Alarm System Act. - Unintentional		4	
	746	Carbon Monoxide Activation, NO CO			
Severe Weather	813	Wind Storm, Tornado/Hurricane Assessment			
Special Incident Type	911	Citizen Complaint			
	9003	Affidavit Issued			
		Total Response for Union Twp/City	10	43	16

 Emergency - MPFD

 Emergency - MPFD Secondary to MMR

 Non - Emergency

Mount Pleasant Fire Department

Fire Experience Report For Union Township/City of Mt. Pleasant
Period - July 18, 2016 through July 24, 2016

Category	Code	Description	Twp	Resp	City
Fire	100	Fire, Other			
	111	Building Fire			
	112	Fires in Structures other than a Building			
	113	Cooking Fire			
	114	Chimney or Flue Fire			
	116	Fuel Burner/Boiler Malfunction			
	131	Passenger Vehicle Fire			
	132	Road freight or transport vehicle fire			
	136	Self-propelled Motor Home/Recreational			
	138	Off-road vehicle of heavy equipment fire			
	140	Natural Vegetation Fire			
	143	Grass/Brush fire			1
	150	Outside Rubbish Fire, other			
	151	Outside Rubbish Fire, trash or waste fire			
	154	Dumpster Fire			3
	160	Special Outside Fire, Other			
Overpressure Rupture, (No Fire)	251	Excessive heat, scorch burns with no fire			
	231	Chemical reaction rupture of process vessel			
Rescue & EMS Incident	300	Rescue, EMS incident, other			1
	311	Medical Assist to EMS Crew	1	2	
	321	EMS Call excluding Veh. Accident			
	322	Motor Vehicle Acc. W/ Injuries	1	6	
	323	Motor Vehicle Acc/Pedestrian			
	324	Motor Vehicle Acc. W/no Injuries	1	4	1
	331	Lock-In (If lock out use 551)			
	342	Search for Person in Water			
	352	Extrication of Victim (s) from vehicle			
	353	Remove Victim from Stalled Elevator			
	360	Water & Ice-related Rescue, Other			
361	Swimming /recreational water area rescue				
3811	Technical rescue standby				
Hazardous Condition (No Fire)	400	Hazard condition other			
	410	Combustible/Flammable Gas Condition			
	411	Gasoline or Other Flammable Spill			
	412	Gas Leak (natural gas or LPG)			
	413	Oil of Combustible Liquid Spill		7	
	424	Carbon Monoxide Incident			
	440	Electric Wiring/Equipment Problem			1
	441	Heat from Short Circuit			
	442	Overheated Motor			
	443	Breakdown of Light Ballast			
	444	Power Line Down			
445	Arcing, shorted electrical equipment				
451	Biological hazard, confirmed or suspected				

	462	Aircraft Standby			
	463	Vehicle Accident, general cleanup			
	480	Attempted burning, illegal action, other			
	4441	Utility Line Down			1
Service Call	500	Service Call - Other			
	510	Person in Distress			
	511	Lock-out			
	512	Ring or Jewelry removal			
	520	Water Problem, Other			
	521	Water Evacuation			
	522	Water of Steam Leak			1
	531	Smoke or Odor Removal			
	542	Animal Rescue			
	552	Police Matter			1
	553	Public Service			
	561	Unauthorized Burning	1	11	
	571	Cover assignment, standby, moveup			
Good Intent Call	600	Good Intent Call, Other			1
	611	Dispatched and Cancelled en route			1
	622	No Incident Found on Arrival			
	631	Authorized controlled burning			
	650	Steam, gas mistaken for smoke,			
	651	Smoke Scare, Odor of Smoke			
	671	HazMat Investigation, no HazMat			
False Alarm & False Call	700	False Alarm, Other			
	710	Malicious, mischievous false call, other			
	715	Local Alarm System, Malicious False Alarm			
	730	System Malfunction			
	731	Sprinkler activation due to malfunction			
	732	Extinguishing System Activation - Malfunction			
	733	Smoke Det. Activation - Malfunction			1
	734	Heat Detector Activation - Malfunction			
	735	Alarm system sounded due to malfunction	2	5	1
	736	CO detector activation due to malfunction			
	740	Unintentional transmission of alarm, other			
	741	Sprinkler activation, no fire			
	743	Smoke Det. Activation - Unintentional	1	2	
	744	Detector activation, no fire			
	745	Alarm System Act. - Unintentional	1	2	1
	746	Carbon Monoxide Activation, NO CO			
Severe Weather	813	Wind Storm, Tornado/Hurricane Assessment			
Special Incident Type	911	Citizen Complaint			1
	9003	Affidavit Issued			
		Total Response for Union Twp/City	10	42	13

 Emergency - MPFD

 Emergency - MPFD Secondary to MMR

 Non - Emergency

Mount Pleasant Fire Department


**Fire Experience Report For Union Township/City of Mt. Pleasant
Period - July 25, 2016 through July 31, 2016**

Category	Code	Description	Twp	Resp	City
Fire	100	Fire, Other			
	111	Building Fire			
	112	Fires in Structures other than a Building			
	113	Cooking Fire			1
	114	Chimney or Flue Fire			
	116	Fuel Burner/Boiler Malfunction			
	131	Passenger Vehicle Fire			
	132	Road freight or transport vehicle fire			
	136	Self-propelled Motor Home/Recreational			
	138	Off-road vehicle of heavy equipment fire			
	140	Natural Vegetation Fire			
	143	Grass/Brush fire			
	150	Outside Rubbish Fire, other			
	151	Outside Rubbish Fire, trash or waste fire			
	154	Dumpster Fire			2
	160	Special Outside Fire, Other			
Overpressure Rupture, (No Fire)	251	Excessive heat, scorch burns with no fire			
	231	Chemical reaction rupture of process vessel			
Rescue & EMS Incident	300	Rescue, EMS incident, other			
	311	Medical Assist to EMS Crew			
	321	EMS Call excluding Veh. Accident			2
	322	Motor Vehicle Acc. W/ Injuries	1	3	1
	323	Motor Vehicle Acc/Pedestrian			
	324	Motor Vehicle Acc. W/no Injuries			
	331	Lock-In (If lock out use 551)			
	342	Search for Person in Water			
	352	Extrication of Victim (s) from vehicle			
	353	Remove Victim from Stalled Elevator			
	360	Water & Ice-related Rescue, Other			
	361	Swimming /recreational water area rescue			
3811	Technical rescue standby				
Hazardous Condition (No Fire)	400	Hazard condition other			
	410	Combustible/Flammable Gas Condition			
	411	Gasoline or Other Flammable Spill			
	412	Gas Leak (natural gas or LPG)		6	
	413	Oil of Combustible Liquid Spill			
	424	Carbon Monoxide Incident		3	
	440	Electric Wiring/Equipment Problem			
	441	Heat from Short Circuit			
	442	Overheated Motor			
	443	Breakdown of Light Ballast			
	444	Power Line Down			
445	Arcing, shorted electrical equipment				
451	Biological hazard, confirmed or suspected				

	462	Aircraft Standby			
	463	Vehicle Accident, general cleanup			
	480	Attempted burning, illegal action, other			
	4441	Utility Line Down			2
Service Call	500	Service Call - Other			
	510	Person in Distress			
	511	Lock-out			
	512	Ring or Jewelry removal			
	520	Water Problem, Other			
	521	Water Evacuation			
	522	Water of Steam Leak			
	531	Smoke or Odor Removal			
	542	Animal Rescue			1
	552	Police Matter			
	553	Public Service			
	561	Unauthorized Burning			
	571	Cover assignment, standby, moveup			1
Good Intent Call	600	Good Intent Call, Other			
	611	Dispatched and Cancelled en route			
	622	No Incident Found on Arrival			
	631	Authorized controlled burning			
	650	Steam, gas mistaken for smoke,			
	651	Smoke Scare, Odor of Smoke			
	671	HazMat Investigation, no HazMat			
False Alarm & False Call	700	False Alarm, Other			
	710	Malicious, mischievous false call, other			
	715	Local Alarm System, Malicious False Alarm			
	730	System Malfunction			
	731	Sprinkler activation due to malfunction			
	732	Extinguishing System Activation - Malfunction			
	733	Smoke Det. Activation - Malfunction	1	2	
	734	Heat Detector Activation - Malfunction			
	735	Alarm system sounded due to malfunction			
	736	CO detector activation due to malfunction			
	740	Unintentional transmission of alarm, other			
	741	Sprinkler activation, no fire			
	743	Smoke Det. Activation - Unintentional			
	744	Detector activation, no fire			
	745	Alarm System Act. - Unintentional	1	1	1
	746	Carbon Monoxide Activation, NO CO			
Severe Weather	813	Wind Storm, Tornado/Hurricane Assessment			
Special Incident Type	911	Citizen Complaint			
	9003	Affidavit Issued			
		Total Response for Union Twp/City	6	17	9

 Emergency - MPFD

 Emergency - MPFD Secondary to MMR

 Non - Emergency



Memo

To: Mark Stuhldreher – Township Manager
From: Kim Smith – Public Works Coordinator
Date: August 1, 2016
RE: 2016 Sanitary Sewer Manhole Rehabilitation Recommendation

Sealed bids for the rehabilitation of ten (10) sanitary sewer manholes were received on July 12, 2016. The bids are as follows:

Bidder	Amount
R&A Environmental Rehab	\$53,800.00
Plummers Environmental Services	\$75,179.00
Advanced Rehabilitation Technology	\$30,000.00

I have attached a copy of the advertisement for bids, a map outlining the location of the manholes, bid tabulation sheet, bid specifications, and copies of the bids for your information.

The bids have been reviewed and we found that only one of the bids meet all of our specifications and include a per manhole price which did not exclude items. The bidder who met all of our requirements is Plummers Environmental.

R & A Environmental met the product specifications with their proposed product but several items in their bid will result in additional unknown cost. R&A limited the amount of grout injection they will do on the manholes to repair infiltration. Based on the amount of H2S damage to these particular manholes we feel the 5 gallon limit will be exceeded on several of the manholes. They also failed to provide what the additional cost may be for grout repair. A clause was added to their labor portion of the bid which will allow for extra overtime cost. Due to the nature of these repairs it is very possible that once they start a structure the need to complete it will result in overtime being incurred by the contractor. Their proposal excluded bypass, vac truck services, water control, debris removal, heavy cleaning, permitting or traffic control all of which are listed as responsibilities of the contractor and should have been included in their per manhole cost. It also states water supply must be supplied by others. This is an element of the cleaning factor for the high pressure spraying and should have been included in their per structure price.

Advanced Rehabilitation Technology did not meet the product specifications we requested. However, since they submitted a bid and we were not familiar with this product John Bebow and I reviewed their online data, product information sheets, spoke to several other communities who have used this product, and visited a community to visually inspect some of their manholes. We wanted to find out if they were happy with the performance of the contractor as well as the product. The communities we spoke with all seemed happy with the overall performance of the company and with the product. The main issue that we found was that this products strength is not as high as what we specified. Our specification was written to include products that have proven longevity and success in combating H2S deterioration in manholes. The ten manholes we are doing all have high H2S levels and need to be rehabilitated to withstand high levels. The communities we contacted had structures that have been lined five years or less and just a few had manholes/wet wells with H2S issues. John and I are both hesitant to use a polymeric material vs. an epoxy material without more substantial proof of longevity for our particular needs.

This item was included in our 2016 budget. Based on meeting the minimum specifications and the Township's previous experience with Plummer's Environmental I recommend that the project be awarded to **Plummer's Environmental in the amount of \$75,179.00.**

If you have any questions please let me know.

Thank you



2010 South Lincoln Road
Mt Pleasant, MI 48858
989-772-4600 ext. 224 (phone)
989-773-1988 (fax)
ksmith@uniontownshipmi.com

Bid Tabulation Sheet

Project: 2016 Sewer Manhole Rehabilitation

Due Date: 7-12-2016 Time: 11:00 AM

Bidder	Amount
R&A Environmental Rehab	\$53,800.00
Plumbers Environmental Services	\$75,179.00
Advanced Rehabilitation Technology	\$30,000.00

Kennedy Smith

7-12-16

Jennifer Louchery

7-12-16

ADVERTISEMENT FOR BIDS

Charter Township of Union

2010 S. Lincoln Road

Mount Pleasant, MI 48858

Separate sealed Bids for the rehabilitation of ten (10) sanitary sewer structures located in the Charter Township of Union will be received by the Charter Township of Union at the Charter Township of Union Township Hall, 2010 S. Lincoln Road, Mount Pleasant MI 48858

until 11:00 AM Local Time, July 12, 2016 and then at said location publicly opened and read aloud.

The Work includes the following major items:

- **One (1) Manhole Structure located in the US127 Freeway right-of-way**
- **Nine (9) Manhole Structures located on Isabella & Bluegrass Roads**

The Contract Documents may be examined at the following locations:

Township Website - www.uniontownshipmi.com/departments/utilities/rfp

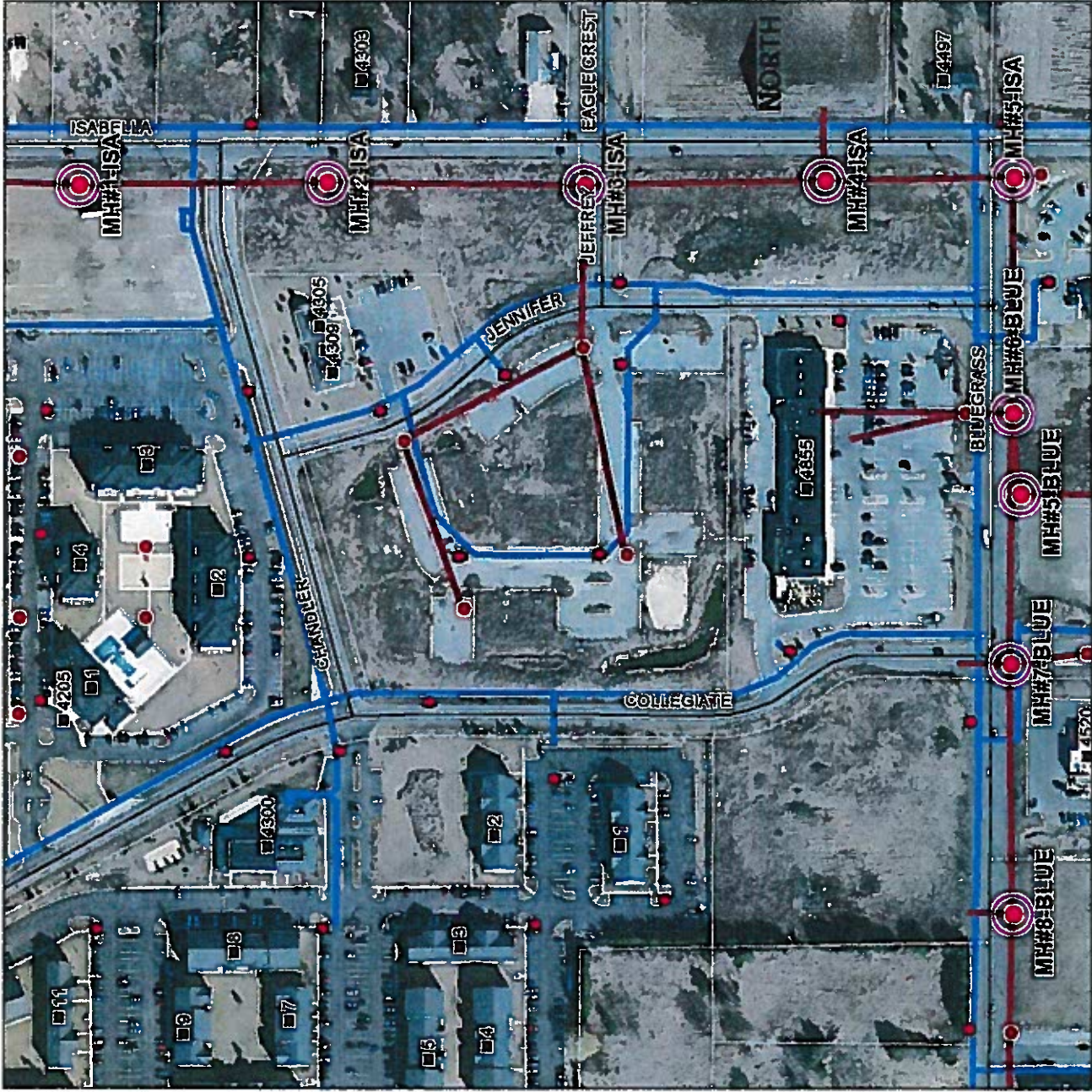
Township Hall - 2010 S. Lincoln Road, Mt. Pleasant MI 48858

Bids received after the above date and time will not be considered. Fax transmittals of Bids will not be accepted.

The Owner reserves the right to waive any informalities or to reject any or all Bids.

No Bidder may withdraw their Bid within 90 days after the actual date of Bid opening.

Charter Township of Union
T14N R04W
Isabella County, Michigan



Legend - Manhole Rehabilitation
Sanitary Sewer Structure Rehabilitation

- Manholes
- Manholes to be Rehabbed (10 Total)
- Circle Indicating Manholes to be Rehabbed (w/ ID labels)
- Lift Stations
- Hydrants
- Building Address Points
- Township Sewer Gravity Mains
- Township Sewer Force Mains
- Township Water Mains

Manholes to be Rehabbed - Map for 2016 Bid Packets

REHABILITATION OF SANITARY SEWER STRUCTURES AND SEWER MAIN MAINTENANCE - 2016

SECTION 1: GENERAL

1.01 DESCRIPTION

This specification includes all work, materials and equipment required for the structural rehabilitation of ten (10) sanitary sewer structures located in The Charter Township of Union Township (location map attached). Nine (9) of the manholes are located on Isabella Road and Bluegrass Road, and one (1) in the Right-of-Way of US127 Freeway. The purpose is to clean, vacuum, and inspect sanitary sewer manholes as well as eliminate infiltration, repair voids, restore structural integrity and provide corrosion protection by the application of a spray-applied monolithic resin liner or cure in place liner to the wall and bench surfaces of brick/concrete structures or structures produced with any other masonry construction material. These structures include, but are not limited to manholes.

1.02 QUALITY ASSURANCE

- A. Furnish materials of quality required by the American Society for Testing and Materials (ASTM) standards or other approved standards and specifications.
- B. Provide guarantee against defective materials and workmanship in accordance with the requirements of these specifications.
- C. The contractor installing the finished protective liner will be a certified trained applicator of the specified process.
- D. Provide verifiable independent third party creep test results documenting no less than 70% retention of flexural modulus of elasticity after 50 years of service. The third party testing firm may not be affiliated with the manufacturer in any way.

1.03 REFERENCES

American Society for Testing and Materials (ASTM) Annual Book of Standards:

- A. ASTM D638-91: Test Method for Tensile Properties of Plastics.
- B. ASTM D790-91: Test Methods for Flexural Properties of Unreinforced and reinforced Plastics and Electrical Insulating Materials.
- C. ASTM D638 - Tensile Properties of Plastics.
- D. ASTM D790 - Flexural Properties of Unreinforced and Reinforced Plastics.
- E. ASTM D695 - Compressive Properties of Rigid Plastics.
- F. ASTM D4541 - Pull-off Strength of Coatings Using a Portable Adhesion Tester.
- G. ASTM D2584 - Volatile Matter Content.
- H. ASTM D543 - Resistance of Plastics to Chemical Reagents.
- I. ASTM C109 - Compressive Strength Hydraulic Cement Mortars.
- J. ACI 506.2-77 - Specifications for Materials, Proportioning, and Application of Shotcrete.
- K. ASTM C579 - Compressive Strength of Chemically Setting Silicate and Silica Chemical Resistant Mortars.

- L. SSPC SP-13/NACE No. 6 – Surface Preparation of Concrete
- M. ASTM - The published standards of the American Society for Testing and Materials, West Conshohocken, PA.
- N. NACE - The published standards of National Association of Corrosion Engineers (NACE International), Houston, TX.
- O. SSPC - The published standards of the Society of Protective Coatings, Pittsburgh, PA.

1.04 PROJECT/SITE CONDITIONS

Coordinate with the Charter Township of Union Utility Foreman, Isabella County Road Commission, and MDOT for traffic control and required permitting during rehabilitation work at each designated location.

1.05 SEQUENCING

All required interruptions of flow through manholes, wet wells, pump stations or any other portion of the plant sanitary sewer system shall be coordinated with and approval received from the Charter Township of Union Utility Foreman prior to the interruption.

1.06 BID SUBMITTAL

- A. Bids must be submitted in a lump sum and per structure format. Owner reserves the right to reduce the number of structures completed due to budget constraints.
- B. Any additional work to be performed will be completed only upon the written approval of Union Township. Any additional repairs or materials needed upon inspection of the shall be submitted to Union Township in writing and shall be in accordance with the hourly rates/material cost provided in this proposal. All materials must be provided in accordance with Union Township Specifications and Approval.
- C. Site inspection of work can be scheduled by contacting the Charter Township of Union at 989-772-4600 ext. 224 Monday – Friday between 8:30 a.m. and 3:00 p.m. Site inspections must be scheduled at least 48 hours in advance.
- D. Bids must include a statement by contractor that all work will commence and be completed by November 1, 2016.
- E. Bids Due: **July 12, 2016 at 11:00 a.m.**
- F. Addressed Sealed Bids must be submitted to:
Charter Township of Union
Attn: Kim Smith – Public Works Coordinator
2010 South Lincoln Road Mt. Pleasant, MI 48858
- G. Bid Inquiry:
Kim Smith – Public Works Coordinator
ksmith@uniontownshipmi.com (989)772-4600 ext. 224
John Bebow – Utility Foreman
jbebow@uniontownshipmi.com

SECTION 2: PRODUCTS

2.01 MATERIALS

A. Infiltration Control mix:

1. Minor Infiltration.

a. Cementitious Grout (De Neef Industrial Products)

A rapid-setting cementitious grout or chemical grout specifically formulated for leak control should be used to stop minor water infiltration. It should be mixed and applied according to the manufacturers recommendations and should meet the following minimum requirements.

Inf. Repair Specifications

Compressive strength	ASTM C 109	1,800 psi @ ½ hr 4,000 psi @ 24 hrs 5,000 psi @ 7 days
Tensile strength	ASTM C 190	300 psi @ 7 days 350 psi @ 28 days

2. Very Active Infiltration

a. Chemical Grout (DC Neef Industrial Chemicals)

- 1). A chemical grout must be used for stopping very active infiltration, filling voids and should be mixed and applied according to manufacturer's recommendations. The cementitious grout should be volume stable having a minimum 1 day compressive strength of 50 psi and a 28 day compressive strength of 250 psi.
- 2). Chemical grouts can be used for stopping very active infiltration and should be mixed and applied per manufacturer's recommendations.

B. Patching and profiling mix:

1. Cementitious Compound (Strong Seal or equivalent product)

A quick setting cementitious material can be used to bring the substrate to profile by filling voids, cracks, missing mortar and other substrate defects. It should be mixed and applied according to the manufacturers recommendations and should meet the following minimum requirements.

Inf. Repair Specifications

Compressive strength	ASTM C 109	1000 psi @ 1 hr 3500 psi @ 48 hrs 5000 psi @ 28 days
Tensile strength	ASTM C 307	200 psi @ 24 hrs 300 psi @ 7 days

C. Resin Based Liner:

1. The resin based material shall be used to form the sprayed/cured in place on structural enhanced monolithic liner covering all interior surfaces of the structure

including benches and inverts of manholes. The finished liner shall be; Raven 405® as manufactured by Raven Lining Systems; or approved equal and conform to the minimum physical requirements listed below.

Product requirements

Compressive strength	ASTM D 695	10,500 psi min
Tensile strength	ASTM D 638	7,000 psi min
Flexural strength	ASTM D 790	12,000 psi min
Bond		Shall exceed tensile strength of substrate
Flexural modulus (initial)	ASTM D 790	600,000 psi min
Density		87 ± pcf

- a. The finished structure shall be corrosion resistant to: Hydrogen Sulfide; 200% sulfuric Acid; 170% Nitric Acid; 5% Sodium Hydroxide; road salts for winter conditions as well as other common ingredients of the sanitary sewage environment.
- b. The wall of the resin based liner will be structurally designed to withstand the hydraulic load generated by the groundwater table & restore structural integrity. The long term (50 yr.) value of the flexural modulus of elasticity will be a minimum of 500,000 psi and is an integral part of the engineering equation used to design the wall thickness of the structural liner.

For this reason the value of the long term flexural modulus of the proposed product will be certified by an independent, third party testing lab and submitted with the design calculations for each individual structure.

Definition- Long term value will be identified as initial flexural modulus less the reduction in value caused by Creep over a fifty (50) year minimum period and verified by DMA testing.

2. Other Materials: Because of the advantages associated with rapid cure and infinite thickness capabilities, no resin based materials other than polyurethane shall be used to achieve the structural enhancement without prior approval of the Utility Foreman or Construction Manager.

SECTION 3: EXECUTION

3.01 INSPECTION

- A. Evaluation of Atmosphere: Prior to entering structures, an evaluation of the atmosphere will be conducted to determine the presence of toxic, flammable vapors or possible lack of oxygen. The evaluation shall be in accordance with local, state or federal safety regulations.

3.02 PREPARATION

- A. Place covers over all pipe openings to prevent extraneous material from entering the sewer system. All foreign material shall be removed from the structures wall and bench floor using a pressure water spray (minimum 2500 psi). The use of acid for cleaning purposes, no matter how dilute, will not be allowed. Loose or protruding brick, mortar and concrete shall be removed by using a masons hammer and chisel. Fill any large voids with quick setting patch mix as described in Paragraph (2.01 IIA). The surface to be repaired must be clean and free of any loose materials.
- B. Minor leaks shall be stopped using the quick-setting specially formulated infiltration control mix (paragraph 2.01 IA) and shall be mixed and applied per manufacturer's

recommendations. When severe infiltration is present, drilling may be required in order to pressure grout outside the structure using either a cementitious or chemical grout (paragraph 2.01 IB). Manufacturer's recommendations shall be followed when pressure grouting is required.

3.03 INSTALLATION/APPLICATION

- A. Application Temperatures: Application of liner shall not be made unless the ambient temperature inside the structure is 50 degrees or higher.
- B. Bench, Invert Repair:
 - 1. The manhole bench must be sprayed/cured in place but depending on availability and future plans, some judgment consideration will have to be made regarding the invert. Important issue here is the necessity to insure a monolithic system is achieved.
 - 2. After blocking flow through the structure and thorough cleaning preparatory work has been achieved. The sprayed/cured in place resin-based liner shall be applied to the invert, bench and wall areas in the same manner as specified for the liner application below. The spray/cured in place liner shall be applied such that the entire structure receives a structurally enhanced monolithic liner.
 - 3. The finished invert surfaces shall be smooth, free of ridges and will be sloped in the direction of flow. Special care shall be used to insure a smooth transition between the new manhole invert and intersecting pipeline inverts such that flow will not be impaired.
- C. Liner Application: The resin based liner shall be manually sprayed/cured in place to all surfaces by a trained technician who is experienced in the application of a spray/cured in place applied resin and has been certified by the manufacturer. Appropriate personal protection equipment shall be utilized in every case when applying the liner/cured in place, the sprayer and personnel in direct contact with the spray atmosphere, will always be protected by supplied air.

The minimum thickness of the material applied is to be no less than 250 mils (1/4") in order to support structural integrity. No other products such as cement or grouts may be used as part of the structural reinstatement, however, said products may be used as part of the repair process prior to sprayed application of the structure as specified in 2.01 IIA.

Application of the spray/cured in place liner applied material must be completed in one (1) mobilization in order to minimize the disruption and cost of excessive bypassing, pipeline plugging, traffic control and all other support services.

The finished manhole must be returned to full service immediately after the spray/cured in place liner application is complete.

- D. Curing: The structure should be allowed to cure for 24 hours and return to ambient temperature prior to any physical testing, including vacuum testing.

3.04 FIELD QUALITY CONTROL

- A. The following test/inspection will be performed by the Utility Foreman.
 - 1. Visually verify the absence of leaks from infiltration.
- B. The following tests shall be performed by the Contractor.
 - 1. Vacuum Test: A vacuum test conforming to the requirements of ASTM C1244 shall be performed for every lined manhole or circular structure where practical.

The Charter Township of Union reserves the right to accept or reject all bids that are received.

No Bidder may withdraw their Bid within 90 days after the actual date of Bid opening.

R & A ENVIRONMENTAL, Inc.

R E H A B

RESTORING AND PROTECTING YOUR INFRASTRUCTURE

P: (989) 386 - 2752 aaron@harshexcavating.com F: (989) 386 - 2639

QUOTE:

Date: Monday, July 11, 2016

Charter Township of Union
2010 South Lincoln Road
Mount Pleasant, Michigan 48858

RE: Epoxy Line Manholes

Prep existing manholes (water blast 6000 psi water blaster)

Install approx. 250 mills of Warren Epoxy on each manhole

Install injection grout to stop infiltration (Max 5 gallons per manhole anything additional will be extra)

Spark test (holiday test) and pull test each manhole ✓

Mobilization / safety / clean up included in base bid

MH #1-ISA = \$ 5,200.00

MH #2-ISA = \$ 4,900.00

MH #3-ISA = \$ 6,700.00

MH #4-ISA = \$ 6,100.00

MH #5-ISA = \$ 6,100.00

MH #6-BLUE = \$ 5,500.00

MH #5-BLUE = \$ 3,100.00

MH #7-BLUE = \$ 4,600.00

MH #8-BLUE = \$ 4,600.00

MH #32-US127 ROW - \$ 7,000.00

(**some manholes flow channels will not be able to be coated**)

All Material is guaranteed to be as specified, and the above work to be performed in accordance with the drawings and specifications submitted for above work and completed in a substantial workmanlike manner for the sum of: \$53,800.00

ATTACHED IS SPECIFICATIONS FOR WARREN EPOXY, IF YOU HAVE ANY QUESTIONS PLEASE FEEL FREE TO CALL ME. THANK YOU, AARON HARSH

GENERAL TERMS AND CONDITIONS:

1- General Conditions: These general conditions are incorporated by reference into the proposal and are part of the Agreement under which services are to be performed by the Contractor for the Customer.

Spec. Does not
limit amount 5/8
bid to repair -
Inspected Manholes

II. Terms: Net 30 days. Interest will be charged at the rate of 1 1/2% per month - 18% per year on all balances over 30 days. The customer agrees to pay attorney's fees, costs and expenses and any and all court related expenses and costs associated with any effort to collect amounts due under this Agreement."

III. Labor: On time plus material quotes, all labor is figured on Straight time. Any overtime required will be at the expense of the customer.

Additional Cost

IV. Site Conditions: Unless specifically addressed above, this proposal does not include bypass, VAC truck services, water control, debris removal, heavy cleaning, permitting or traffic control. Access to the worksite for crew and equipment must be provided by others. Water supply must be supplied by others. Any alteration or deviation from above specification involving extra costs, will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements are contingent upon strikes, accidents or delays beyond our control.

Should have been included VAC truck, water control, debris removal, cleaning, traffic control, permit, water supply

V. Insurance: Owner to carry fire, tornado and other necessary insurance upon above work. Workmen's compensation and Public Liability Insurance on above work to be taken out by R & A Environmental Rehab

VI. Indemnification: The Customer and Contractor will each indemnify the other for liability, loss and expense incurred by the other party resulting from a negligent act or omission in performance of work under this Agreement. If both parties are jointly at fault, each will indemnify the other in proportion to their relative fault. The Customer will also indemnify the Contractor for liability, loss and expense resulting from the Contractor's services if the Contractor is acting at the direction or instruction of the Customer or where the primary cause of damages is due to information provided by the Customer.

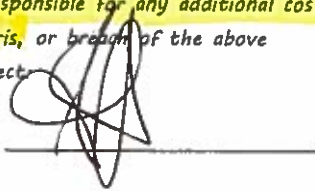
VII. Customer Supplied Labor: Where the Customer supplies labor for the Contractor, the Customer will indemnify the Contractor for liability, loss or expense for work related injuries to the Customer's employees. The Customer agrees to waive all rights of subrogation against the Contractor arising out of work in this Agreement.

VIII. Preexisting Conditions: The Contractor will not be responsible for liability, loss or expense (including damage caused by backup of sewers) where the primary cause of claim or damage is preexisting conditions including faulty, inadequate, or defective design, construction, maintenance, or repair of property, or contamination of the subsurface where the condition existed prior to the start of the Contractor's work. Customer is responsible for loss of service caused by the preexisting conditions at the jobsite.

IX. Environmental Conditions: Any debris at the site is represented to Contractor to be non-hazardous requiring no manifesting or special permitting. The Customer will be responsible for any additional costs or claims associated with the treatment, storage, disposal of removed debris, or breach of the above representation, at any time during or after the completion of the project.

Removal and disposal should be included

Respectfully submitted:



R & A Environmental
Aaron Harsh - VP of Operations

Note: This proposal may be withdrawn by us if not accepted within 30 days.

Contact Name:	John Bebow	Quote #:	Q-E2D-C0B-049D
Customer Name:	Union Charter Township	Date:	07/11/2016
Customer Address:	2010 S. Lincoln Rd Mt. Pleasant, 48858 MI	Prepared By:	Dave Van Dyken
Office Phone:	(989) 722-4600	Office Phone:	(616) 877-3930
Mobile Phone:	(989) 621-1359	Mobile Phone:	(616) 366-8548
Customer Email:	jbbow@uniontownshipmi.com	Email:	davdu@plummersenv.com

Statement of Work:

We hereby submit a proposal to line 9 four foot diameter manholes and 1 five foot diameter manholes for the 2016 Sanitary Sewer Manhole Rehabilitation Project.

Our price includes all labor and materials to prep and line the 10 manholes with Terre Hill Composites cured in place Multiplex liners.

Our PVCP Multiplex cured in place liners are manufactured by Terre Hill Composites and are made up of a PVC coated fleece felt with fused seams, multi layers of woven fiberglass, saturated and bonded together with a 100% solids resin. This liner is inserted into the manhole, inflated with air pressure and injected with steam until the two-part resin is cured and hardened. The final product is impervious to hydrogen sulfide gas and will enhance the structural strength of the existing deteriorated manhole structure.

Services:

Description	Est Qty	Price	UOM	Est Amt
MH#1-ISA	1.00	\$7,828.000000	EA	\$7,828.00
MH#2-ISA	1.00	\$6,818.000000	EA	\$6,818.00
MH#3-ISA	1.00	\$9,848.000000	EA	\$9,848.00
MH#4-ISA	1.00	\$9,085.000000	EA	\$9,085.00
MH#5-ISA	1.00	\$8,075.000000	EA	\$8,075.00
MH#6-Blue	1.00	\$8,075.000000	EA	\$8,075.00
MH#7-Blue	1.00	\$6,100.000000	EA	\$6,100.00
MH#8-Blue	1.00	\$6,100.000000	EA	\$6,100.00
MH#5-Blue	1.00	\$6,550.000000	EA	\$6,550.00
MH#32-US127ROW	1.00	\$6,700.000000	EA	\$6,700.00
Sub-Total:				\$75,179.00

Summary of Estimated Charges

Category	Est Total
Services	\$75,179.00
Total Estimated Charges	\$75,179.00

STANDARD TERMS AND CONDITIONS

In this agreement "you", "your" and the "Customer" refer to the person signing this Contract ("Contract") with Plummer's Environmental Services Inc. ("Company").

- You agree to purchase the material and services described in this Contract from the Company at the price and according to the terms stated in this Contract.
- A service charge of 1 1/2% per month (18% per year) will be paid on past due amounts starting thirty (30) days after the invoice date. If Customer desires to pay invoice by credit card, an additional 3% credit card processing fee will be added to Customer's invoice.
- All material is guaranteed to be as specified. All work to be completed in a good, workmanlike manner according to standard practices and using the standard of care commonly used by environmental professionals and by-product transporters practicing in the State of Michigan. Company's workers are fully covered by Worker's Compensation Insurance. In the event of cancellation of a job in progress by Customer, Customer will reimburse Company for all labor and/or material costs. Company shall have the right to stop work if payments are not made when due. Company shall be held harmless from all liabilities related to the hold up during such period.
- All terms and conditions in this Contract supersede any other terms and conditions, prior proposals or prior bids. This written Contract constitutes the complete integration of all statements and agreements relating to the Contract and there are no representations or warranties other than those expressly incorporated herein nor is this Contract dependent upon or subject to any conditions or approvals precedent or subsequent not herein stated. No subsequent agreement relating hereto shall be binding upon Customer or Company unless in writing and signed by the party being bound.
- If Customer requests changes, alteration or deviation from specifications involving extra cost, such work will only be performed upon written change orders, and will become an extra charge over and above the Contract price. Company may, by giving written notice to Customer, terminate this Contract if Customer breaches this Contract and such breach is not cured within a reasonable period (in any event such period not to exceed thirty days) or such breach is not capable of being cured within a reasonable period.
- The actual completion time is contingent upon access to Customer's facility, labor strikes, material shortages, accidents, weather, acts of God, changes caused by a body of government, and the like. Change orders will affect the time necessary for completion. Company shall not be liable for any damages suffered by Customer as a result of any delay occasioned by these contingencies.
- EXCEPT AS EXPRESSLY STATED HEREIN, THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, BY OPERATIONS OF LAW OR OTHERWISE, OF THE MATERIALS OR SERVICES FURNISHED UNDER THIS CONTRACT BY COMPANY. COMPANY SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE OR ARISING FROM A COURSE OF DEALING OR USAGE OR TRADE. COMPANY SHALL HAVE NO OTHER LIABILITY TO CUSTOMER IN CONNECTION WITH THE MATERIALS OR SERVICES FURNISHED UNDER THIS CONTRACT, INCLUDING WITHOUT LIMITING THE GENERALITY OF THE FOREGOING, ANY LIABILITY FOR DIRECT, INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES OR ANY INJURY OR DAMAGES TO PERSONS AND PROPERTY.

8. Customer shall maintain at its sole cost and expense insurance policies meeting the minimum insurance levels set forth below and shall provide certificates of such insurance evidencing the limits and expiration dates upon request:

a. Worker's Compensations - in accordance with applicable statutory requirements;

b. Commercial General Liability - not less than \$1,000,000 per occurrence, \$2,000,000 general aggregate;

c. Automobile Liability - not less than \$1,000,000 per occurrence.

All policies of insurance shall name Plummer's Environmental Services, Inc. as an additional insured and will provide Plummer's thirty (30) days prior written notice of cancellation.

9. All issues concerning the construction, validity, enforcement and interpretation of this Contract shall be governed by and construed in accordance with the laws of the State of Michigan. The parties agree that venue is hereby exclusively established in the County of Kent, State of Michigan for any dispute or claim arising out of this Contract. Company, if it prevails in any action shall be entitled to all reasonable attorneys' fees, costs and other expenses incurred in such action and in any subsequent efforts to collect the amount awarded.

10. Any portion of this Contract found to be not enforceable by a court of competent jurisdiction will not invalidate the remaining portions of this Contract. Any term of this Contract which is found to be ambiguous shall not be construed against the Company. Nothing herein shall exclude any other rights or remedies to which Company is entitled by law or equity.

11. Customer agrees to indemnify and hold Company harmless, and assume any legal liability to defend Company, its agents, employees, officers and members from any claim or action by any third party arising out of the performance of work pursuant to this Contract except those claims or actions arising out of incidents caused by employees or agents of the Company.

12. All the terms and provisions of this Contract shall be binding upon, shall inure to the benefit of, and shall be enforceable by the respective heirs, beneficiaries, personal representatives, successors and assigns of the parties to this Contract. This Contract is for the benefit of the parties, their successors and assigns, and is not for the benefit of any third party.

Name: John Behow

Signature:

X _____

Date:

Advanced Rehabilitation Technology

Charter Township of Union
2010 S Lincoln Rd
Mount Pleasant, Mi 48858

Attn: Kim Smith - Public Works Coordinator

Re: Manhole Rehabilitation

Bid enclosed for:

- One (1) Manhole structure located in the US 127 Freeway ROW
- Nine (9) Manhole Structures located on Isabella & Bluegrass Roads

Price per Structure: \$ 3,000.00

Lump Sum for 10 listed Manholes: \$ 30,000.00

I have included a brochure for our company, paperwork for our installation process, submittal information for the SpectraShield Liner System and references from various projects in Michigan.

Please feel free to call if you need additional information or have any questions regarding our company or products.

Thanks,
Kevin Appel

Advanced Rehabilitation Technology
01116 County Rd 17
Bryan, Oh 43526
Office 419-636-2684
Cell 419-553-7047
kappel@artcoatingtech.com

Spectra Shield - Advanced Rehabilitative Technology

References in Michigan:

Frank Renaldi -- City of Kalamazoo, WWT - 269-337-8229
 ■ Renaldif@kalamazoo-city.org

Bryan Crawford - City of Battle Creek, WWT 269-966-3513
 ■ bc Crawford@ci.battle-creek.mi.us

Brad Lowery - Jones and Henry Engineering -- Engineers for the City of Battle Creek
 ■ 419-473-9611 blowery@jheng.com

Mark Bolin - City of Watervliet, DPW 269-463-4041
 ■ mbolin@watervliet.org

* Mark Abbott - City of St Louis, DPW 989-681-3644
 ■ mabbott@stlouismi.com

* Bob Studt - City of Ithaca 989-875-3200
 ■ bstudt@ithacami.com

* Tom Van Der Kolk - Holland Township DPW 616-396-1891
 ■ tomv@hct.holland.mi.us

* Bob Demyanovich - Livingston County Drain Commission 517-546-0040
 ■ bdemyanovich@co.livingston.com

Rick Judkins - Ann Arbor Township Utilities Supervisor 734-663-3418
 ■ Rjudkins@aatwp.org

Wrong
 Ryan Stoten LEFT MSG 7-19-2016
 Sr. Civil Engineer - Ryan did not work for Kalamazoo when company did work as far as he knows they have been happy with Service and Product. Not sure about H₂S Issues

Does not work for them anymore
John

John

-2011- Happy with work, good crew, cut into Manhole after and really stuck to wall - H₂S in manholes not Infiltration Issues

7/19/16
 1- This year / Last month older Brick Manholes / Not H₂S Issues
 4 years Manhole Re-lining Cleanout - Spray - pink foam | Flow channels Pink color

1 year old
 Limited Success / 30 manholes - holding up good / Did not pass pull test / 1 year old - responsive when problems present - H₂S Issues

applied
 Happy with Company / used for water infiltration issues no H₂S Issues - 4/5 years max since applied

Bob Studt - Ithaca / Set up meeting to look at Manholes
 989-763-3618 - Ithaca Meet Bob
 Cell # at City Hall
 2:00 - Thursday 7/28/16

SPECTRASHIELD

LINER SYSTEMS

BARRIER COAT SILICONE MODIFIED POLYUREA

PRODUCT DESCRIPTION:

SpectraShield Barrier Coat, is a two component 100% solid Silicone Modified Polyurea with superior performance in water/wastewater applications. *Barrier Coat* displays extremely fast cure times with excellent adhesion to a variety of substrates such as concrete, brick and steel. It can be spray applied at temperatures ranging from 20°F to 150°F. *Barrier Coat* has excellent chemical resistance, excellent water insensitivity, and a temperature range of -40°F to 250°F. Additionally, it conforms to USDA and FDA guidelines for incidental food contact.

PRIMARY APPLICATIONS:

Barrier Coat adheres well to several substrates including concrete, steel, and wood. Some typical uses include:

- MANHOLES
- WET WELLS & PUMP STATIONS
- WWTP STRUCTURES
- SECONDARY CONTAINMENT
- WASTEWATER LAGOON & POOL LINING
- COLD STORAGE AREAS
- WASH BAYS & SHOWERS
- COOLING TOWERS
- PETROCHEMICAL REFINERIES
- OILFIELD PIPELINE COATING
- WATERPROOFING
- INDUSTRIAL COATING
- COATING POLYURETHANE FOAM

COLOR:

- PINK

TYPICAL PHYSICAL PROPERTIES:

Tensile Strength (PSI)	ASTM D412	2420
Elongation (%)	ASTM D412	350
Tear Strength (PLI)	ASTM D624	550
Hardness (Shore D)	ASTM D2240	45
Flexibility (1/8" Mandrel)	ASTM D522	Pass
Flash Point (°F)	Pensky-Martin	>200
Taber Abrasion (mg loss) CS17 Wheel, 1 kg per 1000 cycles	ASTM D4060	25
Viscosity - B Side	CPS	300
Viscosity - A Side	CPS	500
Ratio - A/B	PBV	1:1

2420 - Does not meet Spec
Spec. is 10,500 PSI

TYPICAL PROCESSING PROPERTIES:

Gel Time	Seconds	9
Tack Free Time	Seconds	15
Open to Foot Traffic	Minutes	5
Open to Industrial Traffic	Minutes	60

RECOMMENDED EQUIPMENT SETTINGS:

A-Side Hose Temperature	°F	150
B-Side Hose Temperature	°F	150
Block Temperature	°F	150
Spray Pressure (PSI)	Graco, GX-7	2000
Spray Pressure (PSI)	GlasCraft, Probler	1500



9716 Florida Mining Blvd
Jacksonville, FL 32257
(904) 268-4951
FAX (904) 268-4823
www.spectrashield.com

APPLICATION EQUIPMENT:

This material must be applied utilizing a high pressure plural component pump (1: 1 by Volume) such as a GlasCraft-MX® equipped with a Probler® Gun or a Graco® H-2035 proportioning unit and a Graco® GX-7 (400 Series) or GX-8 spray gun. This proportioning unit must be capable of supplying the correct pressure and heat for the required hose length on a consistent basis. This characteristic is mandatory to apply this elastomer in a consistent, efficient manner.

INSTALLATION RECOMMENDATIONS:

Substrate surfaces should be free of loose particles, laitance, rust, grease and spills. Chloride, moisture and pH levels should be checked prior to application. Always agitate the B-side before using.

CONCRETE:

Old Concrete - Sandblasting, shot blasting or water blasting is highly recommended to remove surface contaminants. Any oils or grease must be removed prior to product application.

New Concrete - The concrete should be allowed to cure for a minimum of 30 days. Shot -blasting, sand blasting, water blasting or acid etching is required to remove the surface laitance that appeared during the curing process.

Carbon Steel- The steel must be prepared to a "near white metal," equivalent to SSPC 10 or NACE 2. For immersion service, a 3-mil blast profile is recommended. A 2-mil blast profile is generally accepted. A 10 - 40 mil coat of *Barrier Coat* is generally recommended based on chemical resistance issues.

SAFETY AND HANDLING:

Refer to MSDS sheets

SHELF LIFE AND STORAGE:

Six months in factory delivered unopened drums. Keep away from extreme heat, cold, and moisture. Maintain at a proper storage temperature of 60°F - 100°F.

CHEMICAL RESISTANCE:

<u>Chemical</u>	<u>Result (25°C)</u>
Acetic Acid (100%)	RC
Acetone	RC
Ammonium Hydroxide (50%)	R
Benzene	RC
Brine-Saturated H ₂ O (310g/l)	R
Chlorinated H ₂ O	R
Clorox® (10%) H ₂ O	R
Diesel Fuel	RC
Gasoline	RC
Gasoline / 5 % MTBE	RC
Gasoline / 5% Methanol	RC
Hydrochloric Acid (20%)	R
Hydrofluoric Acid (50%)	R
Hydraulic Fluid (oil)	RC
Isopropyl Alcohol	R
Lactic Acid	RC
MEK	RC
Methanol	R
Methylene Chloride	C
Mineral Spirits	RC
Motor Oil	R
MTBE	C
Muriatic Acid (10%)	R
NaCl / H ₂ O (10%)	R
Nitric Acid (50%)	R
Phosphoric Acid (10%)	R
Phosphoric Acid (50%)	R
Potassium Hydroxide (10%)	R
Potassium Hydroxide (20%)	R, Dis
Propylene Carbonate	RC
Skydrol®	C
Sodium Hydroxide (25%)	R
Sodium Hydroxide (50%)	R
Sodium Hypochlorite (10%)	R
Sodium Bicarbonate	R
Stearic Acid	R
Sugar / H ₂ O	R
Sulfuric Acid (10%)	R
Sulfuric Acid (>50%)	RC
Toluene	R
1,1,1-Trichloroethane	C
Trisodium Phosphate	R
Vinegar / H ₂ O (5%)	R
H ₂ O	R
H ₂ O (14 days @ 82°C)	R
Xylene	RC

R → Recommended → Little or no visible damage
RC → Recommended Conditional → Some effect, swelling, discoloration
C → Conditional → Cracking - wash down within 1 hour of spillage to avoid defects
NR → Not Recommended
Dis → Discoloration

ADHESION RESULTS:

ASTM D-4541 Elcometer

Concrete >900 psi → Substrate Failure
Steel >1050 psi → Material Failure
Wood >250 psi → Delamination

To: Union Township Board of Trustees

From: Mark Stuhldreher, Township Manager

Date: August 10, 2016

Re: Board Action Requested: Approval of a Service Agreement with McKenna and Associates for the provision of Building Official Services on a temporary basis and the appointment of Mr. Ken Labella as the Charter Township of Union's Building Official.

Background

The Township's permanent, full time Building Official left the organization in April of 2016. To allow for the continuation of service delivery in the department, Barry Vanbuskirk was hired as a temporary, part time, credentialed Building Official in May, 2016. Mr. Vanbuskirk worked approximately 3 days per week. During this time, commercial inspections were contracted to the County on a temporary measure to provide additional support. Mr. Vanbuskirk's last day of employment was July 28, 2016.

Upon the resignation of the full time Building Official, the position was posted but due to the lack of qualified applications, the posting was extended and advertisement broadened. Seven (7) total applications have been received of which two (2) are being reviewed for further consideration.

Absent a properly certified and duly appointed Building Official, the Township is unable at this time to issue Building Permits, conduct full plan reviews and conduct certain inspections.

To address the immediate need for a Building Official, I contacted McKenna and Associates to discuss opportunities that may exist for them to provide Building Official services on a temporary basis. McKenna and Associates is a community planning and economic development consulting firm that provides services in the following areas: Building Department Administration, Zoning, Planning Administration, Economic Development, among other areas.

The result of this dialogue is the recommendation that the attached Service Agreement be executed between the Township and McKenna and Associates and that the Board appoints Mr. Ken Labella as the Charter Township of Union's Building Official.

Scope of Services:

Highlights of the Service Agreement include:

- Building Official, Inspections and Plan Review Services
- Maintenance of written and electronic files
- Additional Services as requested

For a complete listing of services, please see the attached Service Agreement.

Justification

A duly appointed Building Official is needed to so that projects that have been approved by the Planning Commission can continue through the build out phase. Absent a properly certified and appointed Building Official, the Township is unable to issue Building Permits, conduct full plan reviews and conduct certain inspections.

Cost

The fee for service is \$725.00 per day. It is anticipated that the Building Official would work three (3) days per week. Funds that have been budgeted for the Building Official salary and benefits would be transferred to the appropriate Professional/Consultant budget line item. Any additional services would be charged at an hourly rate as outlined in the Service Agreement.

Projected Timetable

Upon approval, this Agreement will be in place until the Township hires a permanent Building Official.

Additionally, I am considering a review of the entire Building/Planning/Zoning operation to ascertain how current workflows, procedures, forms, skill sets, staffing levels, pay levels, etc., line up against our current and future needs. This review may determine that the existing operational construct is adequate for today's environment and adequate to service our future needs (which I assume will increase in volume and complexity). On the other hand, it may reveal certain changes are needed in our systems, skill sets, and pay levels to adequately service the development community now and looking out the next few years. I anticipate this review could take up to 90 days. This will be brought forward at the appropriate time.

Resolution

Authorization is hereby given to approve the attached Service Agreement with McKenna and Associates and that Mr. Ken Labella is hereby named as the Charter Township of Union's Building Official.

July 29, 2016

Mr. Mark Stuhldreher, Manager
Charter Township of Union
2010 S. Lincoln Road
Mt. Pleasant, Michigan 48858

Subject: Draft Agreement for Building Official and Inspection Services

Dear Mark:

Thank you for your inquiry on McKenna's professional inspection and Building Official services. Per our discussion, we have attached a draft agreement for your review. A mutually agreeable schedule will need to be finalized per the attached agreement.

Talent

McKenna offers licensed, effective, insured, and courteous building and code inspection services from McKenna professionals with background checks, using the latest tools and techniques to achieve immediate and long-term Township goals.

Depth

McKenna currently provides inspections for communities with populations close to 400,000. In addition, we provide administrative and clerical services to municipal building departments. In several communities, our licensed personnel function as the Building Official. We also conduct department evaluations and management plans. Permit activity fluctuates dramatically; however, with a growing roster of licensed inspectors available, McKenna has the depth of resources to assist during the most active permit cycles, but if we are not needed, we (and the cost) are not there.

Business/Citizen Friendly

Communities that rise above the normal create a competitive advantage for investment in their town and a timely and complete inspection process is part of the higher level of service which increases investment attraction. McKenna inspectors' business/citizen friendly approach (which includes frequent satisfaction surveys) insures the high service standard.

Success

Although our firm was primarily engaged in planning and zoning services, seven years ago a municipality urged McKenna to manage its Building Department. Since then, the City Manager says building department quality is significantly upgraded and the City's long-time administrative and personnel problems have disappeared in terms of: citizen complaints, unexpected medical leave, Monday/Friday "sick" days, grievances, etc. Results include increased service quality with negligible problems. Although each community is different, McKenna can now confidently propose almost trouble-free service.

Availability

Our skilled and licensed inspectors are available to start immediately upon your authorization.

Our proposal and agreement are a little rough, but I know you are trying to stem a backlog. After your review, we can tailor it to fit Union Township.

Mr. Mark Stuhldreher, Manager
Charter Township of Union
July 29, 2016
Page 2

We propose Mr. Ken LaBelle as Building Official. Mr. LaBelle has worked with us for several years and is a proven Building Official who achieves positive response from the public and municipal leaders. Ken is a resident of Genesee County and has worked for us in Inkster, Birmingham, Oxford and other Michigan communities.

Our services and per day rate are proposed as an interim emergency solution to allow us and you time to design and staff a sustainable development and inspection operation that fits the township budget and service expectations.

I propose a goal of 2 – 3 months to allow time for McKenna or you to find the right personnel. 90 days also gives us time at McKenna to evaluate and make recommendations to the Township for the development side of your operation.

We are also thinking through and preparing a proposal to review your development services operation. Thank you for your consideration.

Respectfully submitted,

McKENNA ASSOCIATES



Phillip C. McKenna, AICP
President

Enclosures

cc: John Jackson, AICP
Ralph Welton, Licensed Building Official

PROFESSIONAL SERVICES AGREEMENT

THIS AGREEMENT, entered into this _____ day of _____, 2016, by and between the CHARTER TOWNSHIP OF UNION, ISABELLA COUNTY, State of Michigan, hereinafter referred to as "Township" and McKENNA ASSOCIATES, a Michigan corporation of Northville, Michigan, hereinafter referred to as "Consultant."

WITNESS:

WHEREAS, the Township regularly performs inspection services; and

WHEREAS, the Township requires the services of an Act 54 Building Official licensed by the State of Michigan to meet state and the needs of Township citizens, contractors, builders and investors.

WHEREAS, the Consultant represents and warrants to the Township that it employs or contracts for State of Michigan - licensed building officials and building inspectors and plan reviewers and that they shall remain so licensed during the term of this agreement.

NOW, THEREFORE, the parties hereto do mutually agree as follows:

SECTION 1. SCOPE OF SERVICES

A. Building Official, Inspections and Plan Review Services

The Consultant shall perform all the following services under this Agreement:

1. Perform duties to the public on-site in the Township duties as Building Official and building inspector and plan reviewer based on mutually agreeable schedule in the Township and at other times if a Building Department emergency exists.
2. Provide and maintain a sufficient number of inspectors, to the satisfaction of the Township Manager. The Consultant shall provide the Township with information showing that the Consultant performed background checks on each of its inspectors, servants; agents and employees to determine their fitness to perform services under this agreement.
3. Provide transportation and other equipment used in the performance of the contracted services.
4. When performing inspection services, the Consultant's inspectors shall wear presentable attire. When performing services under the agreement, such individuals shall be in possession or, and shall display, identification to be provided by the Township.
5. Provide the Township with proof that each of the inspectors performing services possesses a valid operator/driving license or identification card issued by the State of Michigan.
6. Maintain written and electronic files pertaining to services rendered by the Consultant.
7. Review building plans in the Township for alterations or improvements to structures which are subject to review and approval by the Township for conformance with the requirements of the Township and State building codes. Consultant shall delineate on the plans provided to it items requiring correction or alteration for conformance with the appropriate codes. The Consultant shall re-review all such plans to determine whether corrections previously noted have been made.
8. Upon notification and request of the Township, Consultant shall inspect structures for which a building permit has been issued by the Township in order to determine whether the construction meets the requirements of the appropriate building code and the building permit requirements. Upon the completion of each inspection, Consultant shall provide the Township a written report of each inspection, which reports shall be signed by the inspector performing the inspection. The reports shall delineate items requiring correction or alteration for conformance with the building permit requirements.
9. Within the time provided in violation notice or as scheduled by Consultant or property homeowner, Consultant shall reinspect structures in which code violations have been noted in the Consultant's written report in order to determine whether the code violations cited in the report have been corrected. If all violations have been corrected, the Consultant shall notify the Township in writing of any continuing violations previously cited in the Consultant's original inspection report which have not been corrected, if any.
10. The Consultant shall perform required business license building inspections as requested by the Township.

11. Work performed by the Consultant shall comply with approved State of Michigan and local codes which govern the plan review, permit and inspection processes.
12. The Consultant shall not allow any person to perform any plan reviews or construction codes inspections (1) without first determining each Consultant inspector providing Building Official plan review or inspection services possesses necessary licenses required by the State of Michigan and (2) shall provide the Township with documentary proof verifying that each inspector has been issued a "Building Official" and "Registered Code Official and Inspectors" card issued by the Michigan Department of Labor and Economic Growth, Bureau of Construction Codes showing registration number, expiration date and the specific categories for which each is licensed. The Consultant shall also provide the Township with any correspondence from the State of Michigan approving the Consultant and its employees in accordance with Act 54 or otherwise, or approving the Consultant to perform "Plan Review," and "Inspector" duties, as these terms are defined by Act 54 and Michigan law.
13. In providing these Construction code services the Consultant shall:
 - a. Provide Building Official services as these terms are defined by Michigan law. The Consultant shall also provide plan review services as defined by Michigan law; provide a written report of each plan review within seven (7) working days of receipt of said plans by the Consultant in a professional and workmanlike manner.
 - b. Review plans for the issuance of permits; conduct and/or attend pre-plan review meetings to provide guidance in the plan development process; and meet with potential applicants and applicants to discuss findings.
 - c. The physical preparation and issuance of permits and the scheduling of inspections will be performed by the Township. Township personnel shall be responsible for the issuance of certificates, as necessary.
 - d. Provide oversight as the Township's Building Official, issue violation notices for non-compliant work and issue stop-work orders;
 - e. Conduct open hole and final grade demolition inspections;
 - f. Participate in enforcement activities, including court appearances, regarding noncompliant work;
 - g. Evaluate existing structures for safety and health issues, the necessity of permits for work performed, hazardous or unsafe conditions, or other violations, including declarations of emergencies and emergency demolition orders.
 - h. Monitor expiring permits, open inspection findings and noncompliant correction notices and contact property owners to schedule follow-up inspections; provide information to Township Manager on status of expirations, non-compliant inspections; and facilitate scheduling of same;
 - i. Assist potential applicants and applicants by telephone, internet and in person, as necessary.
 - j. Participate in meetings with the public, the Township Manager, legal counsel, other Township agencies and elected officials, or other jurisdiction, State or Federal representatives and, at mutually agreeable times, meet.
 - k. When requested, provide opinions in development and implementation of goals, objectives, fee schedules, ordinances, budgets, policies and priorities for the Township.

SECTION 2. COMPENSATION AND METHOD OF PAYMENT

- A. Building Official services and Building Inspections.** The Township shall pay the Consultant for services, as described in SECTION 1. SCOPE OF SERVICES, as follows:

The Township shall compensate the Consultant for Building Official and inspection services on a full day basis at the hourly rate of \$725.00 each day services are performed. Full day shall be defined as 7 hours of service in the Township during hours Township offices are open to the public.

Consultant will furnish all materials and services including salaries of employees and agents engaged by Consultant and overhead expenses necessary to undertake the above services for the Township and to assume cost, including transportation, insurance, licensing, benefits, etc.

B. **Additional Services.** At the hourly rates below, the Consultant shall provide additional professional services to the Township, at the Township's request, which are outside regular office hours beyond the Scope of Services described in Section 1. above and including B.1., 2., 3. below according to the following Schedule of Hourly Rates:

1. Attending Township internal and public meetings, and appearing at court or at depositions.
2. Generating special reports for the Township, beyond the regular maintenance of written and electronic files pertaining to all services,
3. Providing other services within the professional capabilities of the Consultant at the request of the Township.

SCHEDULE OF HOURLY RATES

<u>Professional Classification</u>	<u>Rate Per Hour</u>
President	\$150.00
Executive or Senior Vice President	\$135.00
Vice President	\$130.00
Director	\$120.00
Senior Principal or Manager	\$110.00
Principal	\$97.00
Senior	\$80.00
Building Official	\$80.00
Building Code Inspector	\$80.00
Associate	\$68.00
Assistant	\$55.00
Aide	\$44.00
Administrative Assistant	\$42.00

Note: These hourly rates are valid through December 31, 2017, after which the Consultant may increase the hourly rates per classification by a percentage equal to the increase in the Consumer Price Index.

C. **Monthly Payment.** Consultant shall submit a monthly invoice, and the Township shall within thirty (30) days satisfy itself as to the performance of such work and pay the amount for services and reimbursement requested by the invoice.

SECTION 3. TERM

This contract shall continue in effect until such time as there is a sixty day (60) written notice of termination by either the Township or the Consultant.

SECTION 4. TOWNSHIP DATA AND SERVICES TO BE PROVIDED TO CONSULTANT

If requested by the Consultant, the Township shall furnish the following, without charge to the Consultant:

- A. Administrative and clerical assistance to the Building Official and inspectors to facilitate their duties.
- B. Copies of applicable BS&A and revenue reports of Building Department activity showing permit revenue amounts for each permit issued, within five (5) calendar days after the 1st day of each month.
- C. One set of the most recent aerial photos (with property lines) of the Township or access to Township GIS.
- D. Hard copies of Township Ordinances for each inspector, or weblink.
- E. Access to updated assessment and ownership data, tax maps, and other basic data to be gathered and/or made available from Township and County files, as may become available.
- F. Access to information on utilities, both public and private, applicable records, minutes, agendas, base maps, tax maps, environmental data and other basic data to be gathered and/or made available from Township files.
- G. Any professional, legal or accounting services connected with the project and the costs of publication, postings, notices and mailings. The Township shall be responsible for all scheduling and notification of meetings.
- H. Designation of a Township project manager for Consultant services.

SECTION 5. SERVICES

The Township hereby engages the services of the Consultant to perform the duties, provide the information, prepare such materials and render such advice as are fully described herein.

SECTION 6. TIME

The Consultant shall complete work required and described in this Agreement according to a mutually agreed upon schedule.

SECTION 7. ACCEPTANCE

Consultant hereby agrees to perform the services described herein.

SECTION 8. EQUAL EMPLOYMENT OPPORTUNITY

There shall be no discrimination against any employee who is employed in the work covered by this Contract or against any applicant for such employment because of race, color, religion, sex or nation of origin. This provision shall include, but not be limited to the following: employment, upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training.

SECTION 9. OWNERSHIP OF DATA

All reports, charts, maps, and graphics shall become the property of the Township, and shall not be furnished to any other party without written permission of the Township.

SECTION 10. COMPLIANCE WITH ALL LAWS

In performance of this agreement, the Consultant agrees to comply with all applicable federal, State and local statutes, ordinances and regulations, when applicable, including minimum wages, Social Security, unemployment compensation insurance, and Worker's Compensation, and to obtain any and all permits applicable to the performance of this agreement.

SECTION 11. NO CONFLICT OF INTEREST

During the term of this contract, the Consultant agrees that it shall not accept employment, nor shall it perform services for or on behalf of any client whose interests are adverse to that of the Township, or for which a conflict between the Township and Consultant would be created, without the prior written consent of the Township.

SECTION 12. ETHICS

All services shall be provided in accordance with the Code of Ethics of the American Planning Association American Institute of Certified Planners.

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

WITNESS:

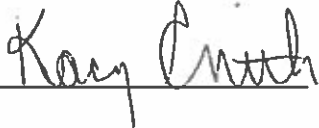
CHARTER TOWNSHIP OF UNION,
ISABELLA COUNTY, MICHIGAN

By: _____

By: _____

By: _____

McKENNA ASSOCIATES, INC.



By: 
John Jackson, AICP, President

Kenneth E. LaBelle, Building Inspector

Professional Experience

BUILDING DEPARTMENT ADMINISTRATION: For 9 years, supervised 50 plus personnel, including municipal office management, building inspectors, trade inspectors, housing inspectors and journeymen. Administrated accounts payable and receivable, budget controls systems, multiple construction sites in Fenton and Flint, Michigan.

BUILDING INSPECTION: 30 years experience performing municipal inspection and plan review for commercial, industrial, and residential construction / remodeling.

TRAINING: Developed and approved continuing educations credits for Building Official, Building Inspector, and Plan Reviewer. General training programs for computers and preventative maintenance.

Developed municipal office procedures, department budgets, budget controls, testing programs and capital improvement plans.

PLANNING: Reviewed site plans to determine compliance with zoning ordinance. Directed enforcement of zoning ordinance and drafting of zoning text revisions for consideration by elected officials.

CONSTRUCTION: Design: mechanical improvement systems, structural improvements, and additions to existing structures, electrical systems improvements, and real estate appearance improvement.

OPERATION: Operating and maintenance of steam heating boilers, water heating boilers steam power boilers and their related unfired pressure vessels, as well as maintaining associated mechanical equipment.

IMPLEMENTATION: Writing and evaluation of specification for outside bidding, supervising phased and non-phased construction projects; supervised individual trade projects; negotiating and awarding construction contracts.

MECHANICAL INSPECTION: Inspected boilers, fired and unfired pressure vessels, electrical distribution systems, air conditioning components, mechanical components, in field and shop for compliance with the American Society of Mechanical Engineers.

Licenses

Licensed Building Official - Michigan

Licensed Building Inspector - Michigan

Licensed Building Plan Reviewer - Michigan

ICC Certified Building Inspector

ICC Certified Property Maintenance and Housing Inspector

Registered as Instructor: P.A. 54, State of Michigan

1 st Class Stationary Engineer

MICHIGAN DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS
BUREAU OF CONSTRUCTION CODES

REGISTERED CODE OFFICIAL AND INSPECTOR

CATEGORIES
BUILDING OFFICIAL
BUILDING INSPECTOR
PLAN REVIEWER

KENNETH E LABELLE
7387 BREWER ROAD
FLINT MI 48907

REGISTRATION NO.
002505

EXPIRATION DATE
09/16/18

ROCK SNYDER
GOVERNOR

MICHIGAN DEPARTMENT OF LICENSING AND REGULATORY
BUREAU OF CONSTRUCTION CODES

REGISTERED CODE OFFICIAL AND INSPECTOR

CATEGORY BUILDING OFFICIAL
BUILDING INSPECTOR
PLAN REVIEWER

KENNETH E LABELLE
7387 BREWER ROAD
FLINT MI 48907

REGISTRATION NO.
BCC-149 (Rev 9/10) 002505

EXPIRATION DATE
09/16/18

THIS DOCUMENT IS TRULY
ISSUED UNDER THE LAWS OF
THE STATE OF MICHIGAN