

**MEETING NOTICE  
MAIZE CITY COUNCIL  
REGULAR MEETING**

**TIME: 7:00 P.M.**  
**DATE: MONDAY, DECEMBER 19, 2016**  
**PLACE: MAIZE CITY HALL**  
**10100 W. GRADY AVENUE**

**AGENDA**

**MAYOR CLAIR DONNELLY PRESIDING**

- 1) Call to Order
- 2) Roll Call
- 3) Pledge of Allegiance/Moment of Silence
- 4) Approval of Agenda
- 5) Public Comments
- 6) Consent Agenda
  - a. Approval of Minutes – Regular Meeting of November 21, 2016 and Special Meeting of November 30, 2016.
  - b. Receive and File Park Board minutes of July 12, 2016.
  - c. Receive and file Planning Commission minutes of October 6, 2016.
  - d. Cash Disbursements from November 1, 2016 thru November 30, 2016 in the amount of \$385,413.18 (Check #63453 thru #63585)
  - e. Approval of Cereal Malt Beverage applications from January 1, 2017 through December 31, 2017 for Maize Pizza Hut North, Maize Pizza Hut Italian Bistro, Kwik Shop, and Kansas International Dragway
- 7) Old Business
  - A. None
- 8) New Business
  - A. Agri Environmental Services Agreement
  - B. Aero-Mod Inc Agreement
- 9) Reports
  - Police
  - Public Works
  - City Engineer
  - Planning & Zoning
  - City Clerk
  - Legal
  - Operations
  - Mayor’s Report
  - Council Member’s Reports
- 10) Executive Session
- 11) City of Maize, Kansas Adjournment

**MINUTES-REGULAR MEETING  
MAIZE CITY COUNCIL  
Monday, November 21, 2016**

The Maize City Council met in a regular meeting at 7:00 p.m., Monday, **September 19, 2016** in the Maize City Hall, 10100 Grady Avenue, with **Mayor Clair Donnelly** presiding. Council members present were **Karen Fitzmier, Pat Stivers, Donna Clasen, Alex McCreath** and **Kevin Reid**.

Also present were: **Richard LaMunyon**, City Administrator, **Rebecca Bouska**, Deputy City Administrator, **Jocelyn Reid**, City Clerk, **Matt Jensby**, Police Chief, **Ron Smothers**, Public Works Director, **Bill McKinley**, City Engineer, **Kim Edgington**, Planning Administrator, **Tom Powell**, City Attorney.

**APPROVAL OF AGENDA:**

The Agenda was submitted for approval with the addition of Item 6 (a) – LKM Service Awards.

**MOTION:** **Stivers** moved to approve the Agenda as amended.  
**Clasen** seconded. Motion declared carried.

**PUBLIC COMMENTS:**

Justin Swiler, tenant at 803 Surrey Lane and Tony Smith, property owner of 803 Surrey Lane addressed the Council regarding the July 3, 2016 sewer backup and the status of the City's claim against Utilities Plus.

**CONSENT AGENDA:**

The Consent Agenda was submitted for approval including:

- a) Approval of minutes – Regular Council Meeting of October 17, 2016
- b) Cash Disbursements from October 1, 2016 through October 31, 2016 in the amount of \$458,882.42 (Check #63289 through #63452).
- c) Approval of Busby, Ford Reimer LLC engagement letter for auditing services for the year ending December 31, 2016 in the amount of \$15,500.

**MOTION:** **Clasen** moved to approve the Consent Agenda as submitted.  
**Stivers** seconded. Motion declared carried.

**PRESENTATION OF LEAGUE OF KANSAS MUNICIPALITIES SERVICE AWARDS:**

**Mayor Donnelly** presented six employees with service awards from the League of Kansas Municipalities:

- **Matt Jensby** – 20 years
- **Richard LaMunyon** – 15 years
- **Craig Brassler** – 10 years
- **Sara Javier** – 10 years
- **Jeff Piper** – 10 years
- **Jocelyn Reid** – 10 years

**PUBLIC HEARING FOR 2016 BUDGET AMENDMENT:**

**Mayor Donnelly** opened the Public Hearing at 7:25 pm. Hearing no comments, the Public Hearing was closed.

**AMENDED 2016 BUDGET:**

The amended 2016 Budget was submitted for approval. Staff recommended an amendment to the 2016 budget to increase budget authority in the general, street, wastewater and water funds.

**MOTION:** **Clasen** moved to adopt the amended 2016 budget as published.  
**Fitzmier** seconded. Motion declared carried.

**EAGLES NEST PHASE 2B PAVING BIDS AND CONTRACT:**

Bids and a construction contract for paving improvements in Eagles Nest Phase 2B were submitted for Council approval.

**MOTION:** **Stivers** moved to accept the low bid and approve the construction contract with **Cornejo &**

Sons, LLC in an amount not to exceed \$252,786.72 and authorize the Mayor to sign.  
**Reid** seconded. Motion declared carried.

**WESTAR EASEMENT AGREEMENTS:**

Adjustments to current Westar easement agreements and a temporary easement agreement were submitted for Council approval.

**MOTION:** **Clasen** moved to approve the temporary and modified easement agreements with Westar and authorize the Mayor to sign.  
**Fitzmier** seconded. Motion declared carried.

**ZONING CASE #Z-04-016 (404 W IRMA):**

A request for a zone change from LI Limited Industrial to MF-18 Multi-Family Residential at 404 W. Irma was submitted for Council approval.

**MOTION:** **Clasen** moved to adopt the ordinance for a zone change within Maize city limits.  
**Reid** seconded. Motion declared carried.

*City Clerk assigned Ordinance #927.*

**RESCINDING SNOW REMOVAL, TWO-WAY RADIO AND CABLE TELEVISION POLICIES:**

A recommendation to rescind the policies for snow removal, two-way radios and the cable television channel was submitted for Council approval.

**MOTION:** **Clasen** moved to rescind the Snow Removal, Two-Way Radio and Cable Television policies.  
**Stivers** seconded. Motion declared carried.

**PERSONNEL POLICY MANUAL REVISIONS:**

The revised Personnel Policy was submitted Council approval.

**MOTION:** **Clasen** moved to adopt the revised Personnel Policy with the following changes:

1. Approval of the School Resource Officer job description
2. Reformatting of the job descriptions
3. Technical corrections with no content change

**Fitzmier** seconded. Motion declared carried.

**ADJOURNMENT:**

With no further business before the Council,

**MOTION:** **Clasen** moved to adjourn.  
**McCreath** seconded. Motion declared carried.  
Meeting adjourned.

**Respectfully submitted by:**

Jocelyn Reid, City Clerk  
City of Maize, Kansas

**MINUTES-SPECIAL MEETING  
MAIZE CITY COUNCIL  
Wednesday, November 30, 2016**

The Maize City Council met in a special meeting at 11:00 a.m., **Wednesday November 30, 2016** in the Maize City Hall, 10100 Grady Avenue, with **Mayor Clair Donnelly** presiding. Councilmembers present were **Donna Clasen**, **Karen Fitzmier**, and **Alex McCreath**. **Pat Stivers** and **Kevin Reid** were absent.

Also present were: **Richard LaMunyon**, City Administrator; **Rebecca Bouska**, Deputy City Administrator; **Jocelyn Reid** City Clerk, **Sue Villarreal**, City Treasurer and **Jolene Graham**, Executive Assistant.

**APPROVAL OF AGENDA:**

The agenda was submitted for Council approval.

**MOTION:**     **Clasen** moved to approve the Agenda as presented.  
                  **McCreath** seconded. Motion declared carried.

**PUBLIC HEARING FOR THE REVISED FLOODPLAIN ORDINANCE:**

**Mayor Donnelly** opened the Public Hearing at 11:10 a.m. Hearing no comments, the Public Hearing was closed.

**ADJOURNMENT:**

With no further business before the Council,

**MOTION:**     **Clasen** moved to adjourn.  
                  **McCreath** seconded. Motion declared carried.  
                  Meeting adjourned.

**Respectfully submitted by:**

Jocelyn Reid, City Clerk

**MINUTES – REGULAR MEETING  
MAIZE PARK AND TREE BOARD  
Tuesday, July 12<sup>th</sup>, 2016**

The Maize Park and Tree Board met in a regular meeting at 5:30 pm, Tuesday, July 12<sup>th</sup>, 2016 with *Chair Jennifer Herington* presiding. Board members present were *Vice-Chair Dennis Wardell, Secretary Marina Fulton, Hugh Nicks, Nancy Scarpelli, Patrick Atchison* and *Joshua Belcher*.

Also present was: *Jolene Graham*, Recording Secretary.

**APPROVAL OF AGENDA:**

The Agenda was submitted for Board approval.

**MOTION:** *Atchison* moved to approve the agenda with the addition to receive and file additions to the Park Master Plan as an item under New Business. *Wardell* seconded. Motion declared carried.

**APPROVAL OF THE MAY 10<sup>TH</sup>, 2016 MINUTES:**

The Park and Tree Board Meeting Minutes of May 10<sup>th</sup>, 2016 were submitted for approval.

**MOTION:** *Belcher* moved to approve the minutes. *Scarpelli* seconded. Motion declared carried.

**TREES AT THE CEMETERY**

Discussion was held regarding the loss of three of the new red bud trees and the probable cause of poor drainage at the cemetery. Board member Nicks demonstrated the water damage of a redbud truck.

**MOTION:** *Nicks* moved for staff to research options and resolve if possible. *Scarpelli* seconded. Motion declared carried.

**RECEIVE AND FILE ADDITION TO THE MASTER PARK PLAN**

Discussion was held regarding the revisions submitted by Scarpelli to the Master Park Plan and development of the remaining sections. Workshops will be held for the Park and Tree board to better facilitate the development of the Master Park Plan. The goal is to finalize a plan in December 2016.

**MOTION:** *Belcher* moved to receive and file the New Master Park Plan section revisions.

*Wardell* seconded. Motion declared carried.

**ADJOURNMENT:**

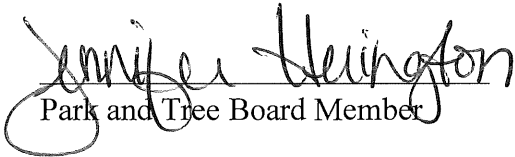
With no further business before the Board:

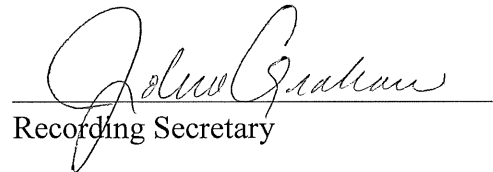
**MOTION:** *Nicks* motioned to adjourn.

*Fulton* seconded. Motion declared carried.

Meeting adjourned at 6:40 pm

Approved by the Park and Tree Board on December 13 2016.

  
Park and Tree Board Member

  
Recording Secretary

**MINUTES-REGULAR MEETING  
MAIZE CITY PLANNING COMMISSION AND  
BOARD OF ZONING APPEALS  
THURSDAY, OCTOBER 6, 2016**

The Maize City Planning Commission was called to order at 7:00 p.m., on Thursday, October 6, 2016, for a Regular Meeting with *Bryan Aubuchon*, presiding. The following Planning Commission members were present: *Mike Burks, Bryant Wilks, Andy Sciolaro, Dennis Downes, Bryan Aubuchon* and *Jennifer Herington*. Also present were *Sue Villarreal*, Recording Secretary; *Kim Edgington*, Planning Administrator; *Richard LaMunyon*, City Administrator; *Chad Mohr*, Applicant.

**APPROVAL OF AGENDA**

**MOTION:** *Herington* moved to approve the agenda as submitted.  
*Downes* seconded the motion.  
Motion carried unanimously.

**APPROVAL OF MINUTES**

**MOTION:** *Sciolaro* moved to approve the September 1, 2016 minutes with the addition of: “displayed on plat” to item E. of Z-03-016 conditions.  
*Downes* seconded the motion.  
Motion carried unanimously.

**NEW BUSINESS – PLANNING COMMISSION**

**Z-04-016-ZONE CHANGE REQUEST FOR – APPROXIMATELY 0.42 ACRES  
FROM LI LIMITED INDUSTRIAL TO MF-18 MULTI-FAMILY RESIDENTIAL  
AT 404 W IRMA**

*Edgington* explained that the property is currently zoned as Limited Industrial. The current Zoning Code does not allow any type of residential structures within LI zoning making the current structure a legal non-conforming use. The property owner would like to rezone to MF-18 multi-family residential to accommodate the existing use and to allow the addition of a du-plex or tri-plex.

**MOTION:** *Wilks* moved to approve Z-04-016 zone change for approximately 0.42 acres from LI Limited Industrial to MF-18 Multi-family residential subject to the following findings:

1. The zoning, uses and character of the neighborhood: This property is located within an area that is currently residential in character, with small-scale mixed commercial and multi-family uses nearby. The type of proposed use could be compatible with existing development in the area.
2. The suitability of the subject property for the uses to which it has been restricted: The property is zoned for industrial but has remained undeveloped for many years under its current zoning.

3. Extent to which removal of the restrictions will detrimentally affect nearby property: There are no expected negative effects on nearby properties.

4. Conformance of the requested change to the adopted or recognized Comprehensive Plan and Policies: The City of Maize Comprehensive Plan contemplates that this property is appropriate for urban residential development.

5. Impact of the proposed development on community facilities:

The requested zone change would introduce an appropriate land use to this area. The City's municipal service systems have been designed to adequately support this type of development.

Municipal water and sewer service are available at this location.

And subject to the following protective overlay set forth by commissioners:

1. Property will be limited to a maximum of 6 units.

*Wilks* seconded the motion.

Motion carried unanimously.

**ADJOURNMENT:**

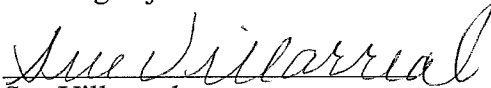
**MOTION:** With no further business before the Planning Commission,

*Downes* moved to adjourn.

*Wilks* seconded the motion

Motion carried unanimously.

Meeting adjourned at 7:40 PM.



Sue Villarreal  
Recording Secretary



Bryan Aubuchon  
Chairman



						City of Maize
						Disbursement Report Totals
						Dates Covered: 11/01/2016 - 11/30/2016
<b>Accounts Payable:</b>						
	Voucher	Voucher	Check	Check	Check Numbers	
	Date	Amt	Date	Amount	Begin	End
	2-Nov	\$ 259.44	3-Nov	\$ 258.44	63465	63466 Utilities
	3-Nov	9,841.12	3-Nov	9,841.12	63467	63469 Utilities
	3-Nov	89,499.85	4-Nov	89,499.85	63470	63521
	8-Nov	7,756.77	8-Nov	7,756.77	63522	63528 Utilities
	16-Nov	104,872.69	21-Nov	104,872.69	63542	63584
	22-Nov	329.46	22-Nov	329.46	63585	63585 Utilities
	AP Total	<u>\$ 212,559.33</u>		<u>\$ 212,558.33</u>		
<b>Payroll:</b>						
	Run	Earning	Check	Check	Check Numbers	
	Date	History	Date	Amount	Begin	End
	14-Dec	\$ 126,220.14	3-Nov	\$ 73,088.14	63453	63464
			17-Nov	99,766.71	63529	63541
	KPERS Employer Portion	9,859.84				
	FICA Employer Portion	9,025.50				
	Health/Dental Insurance (Employer Portion)	27,749.37				
	PR Total	<u>\$ 172,854.85</u>		<u>\$ 172,854.85</u>		
	AP			\$ 212,558.33		
	PR			172,854.85		
	Total Disbursements			<u>\$ 385,413.18</u>		
	<b>Check Numbers used this period:</b>					
	<b>#63453 thru #63585</b>					

**CITY OF MAIZE**  
**Bank Reconciliation Report**  
**For November 2016**

**Fund Balances**

FUND	NAME	BEGIN			END	
		PERIOD	RECEIPTS	DISBURSEMENTS	PERIOD	
01	General Fund	\$ 421,117.49	\$ 155,244.54	\$ 250,226.33	\$	326,135.70
02	Street Fund	165,931.85	14,307.00	10,768.62		169,470.23
04	Capital Improvements Fund	145,724.81	40,950.24	72,474.06		114,200.99
05	Long-Term Projects	(48,644.78)	-	88.95		(48,733.73)
10	Equipment Reserve Fund	104,408.16	19,191.42	-		123,599.58
11	Police Training Fund	2,663.50	367.84	-		3,031.34
12	Municipal Court Fund	27,136.90	1,356.05	-		28,492.95
16	Bond & Interest Fund	5,544.10	53,640.90	-		59,185.00
19	Wastewater Reserve Fund	152,621.26	3,000.00	-		155,621.26
20	Wastewater Treatment Fund	712,119.82	66,910.35	58,063.44		720,966.73
21	Water Fund	557,157.60	64,811.75	50,530.53		571,438.82
22	Water Reserve Fund	143,148.81	3,000.00	-		146,148.81
23	Water Bond Debt Reserve Fund	268,000.00	-	-		268,000.00
24	Wastewater Bond Debt Reserve Fund	147,800.09	-	-		147,800.09
32	Drug Tax Distribution Fund	2,404.57	-	-		2,404.57
38	Cafeteria Plan	3,310.35	1,180.90	3,104.88		1,386.37
76	Bond Refundings	(40,881.37)	-	-		(40,881.37)
98	Maize Cemetery	160,377.01	951.21	1,665.55		159,662.67
<b>Totals All Fund</b>		<b>\$ 2,929,940.17</b>	<b>\$ 424,912.20</b>	<b>\$ 446,922.36</b>	<b>\$</b>	<b>2,907,930.01</b>

**Bank Accounts and Adjustments**

Halstead Checking Account	\$ 725,445.71	\$ 301,740.21	\$ 440,120.42	\$	587,065.50
Outstanding Items				\$	5,716.15
Halstead Bank Money Market Account	2,154,707.20	778.49	-		2,155,485.69
Maize Cemetery CD 85071	91,302.69	-	-		91,302.69
Maize Cemetery Operations	69,074.32	951.21	1,665.55		68,359.98
<b>Totals All Banks</b>	<b>\$ 3,040,529.92</b>	<b>\$ 303,469.91</b>	<b>\$ 441,785.97</b>	<b>\$</b>	<b>2,907,930.01</b>

**CITY OF MAIZE**  
**Cash and Budget Position**  
**Thru November 30, 2016**

FUND	NAME	BEGINNING	MONTH	MONTH	END MONTH	ANNUAL	YTD	YTD	REMAINING	REMAINING
		CASH BALANCE	RECEIPTS	DISBURSEMENTS	CASH BALANCE	EXPENSE BUDGET	REVENUE	EXPENSE	EXPENSE BUDGET	BUDGET PERCENTAGE
01	General Fund	\$ 421,117.49	\$ 155,244.54	\$ 250,226.33	\$ 326,135.70	\$ 3,534,297.00	\$ 3,287,425.08	\$ 3,350,528.05	\$ 183,768.95	5.20%
02	Street Fund	165,931.85	14,307.00	10,768.62	169,470.23	302,000.00	300,845.28	282,379.72	19,620.28	6.50%
04	Capital Improvements Fund	145,724.81	40,950.24	72,474.06	114,200.99	665,000.00	450,035.74	688,286.03	99,457.37	14.96%
05	Long-Term Projects	(48,644.78)	-	88.95	(48,733.73)	-	929,426.30	696,534.69		
10	Equipment Reserve	104,408.16	19,191.42	-	123,599.58	230,000.00	214,362.45	205,325.98	24,674.02	10.73%
11	Police Training Fund	2,663.50	367.84	-	3,031.34	2,000.00	3,534.85	1,772.50	227.50	11.38%
12	Municipal Court Fund	27,136.90	1,356.05	-	28,492.95	-	26,881.45	15,547.59		
16	Bond & Interest Fund	5,544.10	53,640.90	-	59,185.00	2,552,350.00	2,215,522.78	2,384,032.69	168,317.31	6.59%
19	Wastewater Reserve Fund	152,621.26	3,000.00	-	155,621.26	-	33,000.00	10,764.68		
20	Wastewater Treatment Fund	712,119.82	66,910.35	58,063.44	720,966.73	763,200.00	843,404.73	721,000.57	42,199.43	5.53%
21	Water Fund	557,157.60	64,811.75	50,530.53	571,438.82	837,540.00	857,501.70	719,604.78	117,935.22	14.08%
22	Water Reserve Fund	143,148.81	3,000.00	-	146,148.81	-	33,000.00	-	-	
23	Water Bond Debt Reserve Fund	268,000.00	-	-	268,000.00	-	-	-		
24	Wastewater Bond Debt Reserve Fund	147,800.09	-	-	147,800.09	-	-	-		
32	Drug Tax Distribution Fund	2,404.57	-	-	2,404.57	-	-	-		
38	Cafeteria Plan	3,310.35	1,180.90	3,104.88	1,386.37	-	12,474.90	16,368.24		
76	Bond Refundings	(40,881.37)	-	-	(40,881.37)			40,881.37		
98	Maize Cemetery	160,377.01	951.21	1,665.55	159,662.67	161,706.00	37,937.74	35,520.92	126,185.08	78.03%
<b>Report Totals</b>		<b>\$ 2,929,940.17</b>	<b>\$ 424,912.20</b>	<b>\$ 446,922.36</b>	<b>\$ 2,907,930.01</b>	<b>\$ 9,048,093.00</b>	<b>\$ 9,245,353.00</b>	<b>\$ 9,168,547.81</b>	<b>\$ 782,385.16</b>	<b>8.65%</b>

**MAIZE CITY COUNCIL  
REGULAR MEETING  
MONDAY, December 19, 2016**

**AGENDA ITEM #8A**

**ITEM:        **AGRI ENVIRONMENTAL SERVICES SLUDGE REMOVAL  
AGREEMENT****

**BACKGROUND:**

The City has contracted with Agri Environmental Services, LLC (formerly Agri Enterprises) since January 1, 2007, to provide services to remove sludge from the wastewater treatment plant.

The original agreement expired December 31, 2011.  
A new five-year agreement was effective January 1, 2012 and will expire on December 31, 2016.

The agreement before you is a renewal of the previous agreement with Agri Environmental Services, LLC.

The new agreement is effective January 1, 2017 and is for a five-year term unless either party terminates the agreement early.

**FINANCIAL CONSIDERATIONS:**

Cost for services increases from \$0.03/gallon to \$0.035/gallon of sludge hauled.

**LEGAL CONSIDERATIONS:**

Approved as to form by the City Attorney

**RECOMMENDATION/ACTION:**

Approve the agreement with Agri Environmental Services, LLC and authorize the Mayor to sign.

## AGREEMENT FOR SLUDGE REMOVAL

THIS AGREEMENT entered into on 1st day of January, 2017, by and between Agri Environmental Services, LLC (“Agri Environmental”) and the City of Maize, Kansas (the “City”).

### RECITALS

WHEREAS, the City operates a Wastewater Treatment Plant; and

WHEREAS, the Wastewater Treatment Plant produces sludge which must be disposed of in a manner that complies with regulations and guidelines of the Kansas Department of Health and Environment (“KDHE”) and other federal, state and local regulatory agencies; and

WHEREAS, Agri Environmental is in the business of and is otherwise qualified to remove, transport and dispose of sludge that is produced from wastewater treatment plants; and

WHEREAS, the City desires to renew its contract with Agri Environmental, that terminates December 31<sup>st</sup>, 2016, to remove, transport and dispose of sludge that is produced by the City’s Wastewater Treatment Plant,

NOW, THEREFORE, for the consideration and for the mutual covenants and promises set forth herein, the parties hereto agree as follows:

**Section 1. Removal, Transport and Disposal.** In accordance with the terms and conditions herein, Agri Environmental shall remove, transport and dispose of sludge produced by the City’s Wastewater Treatment Plant.

**Section 2. Compensation and Billing.** The City shall pay Agri Environmental the sum of 3.5 cents (\$.035) per gallon of sludge that is removed, transported and disposed of by Agri Environmental in accordance with terms and conditions of this Agreement. Agri Environmental shall submit an invoice to the City on a monthly basis by the 10<sup>th</sup> day of each month based upon the duplicate copy of the Agri Environmental load sheets that are to be submitted to the City by Agri Environmental as required in Section 8 herein. The City shall pay Agri Environmental on a monthly basis within fifteen (15) days of receiving an invoice from Agri Environmental.

**Section 3. Termination.** The term of this Agreement shall be for a period of five (5) years commencing January 1, 2017, subject to the following:

- (a) The City shall have the right to terminate this Agreement at any time, with or without cause, by providing Agri Environmental thirty (30) days advance written notice;
- (b) Agri Environmental shall have the right to terminate this Agreement with cause after it provides the City forty-five (45) days advance written notice (that identifies the default) if the City fails to cure the default within such forty-five (45) day period;
- (c) Agri Environmental shall have the right to terminate this Agreement without cause by

- providing the City one hundred and eighty (180) days advance written notice; and
- (d) At the end of the five (5) year term the parties, by mutual agreement, subject to revisions to the Agreement as agreed by the parties, may agree to renew this Agreement for an additional term as determined by the parties at such time.

**Section 4. Overall Management.** Agri Environmental shall provide the necessary management services in accordance with guidelines and regulations of KDHE and other federal, state and local agencies, which outline the procedures for the proper removal, transport and disposal of City sludge including land application of such sludge.

**Section 5. Acceptance of Sludge.** Agri Environmental shall accept from the City municipal sludge that is suitable for beneficial use in a land application program as determined by the regulations and guidelines of KDHE. The acceptance of sludge by Agri Environmental does not release the City for the ultimate responsibility for the sludge under the laws of the State of Kansas and rules and regulations of the Environmental Protection Agency (“EPA”).

**Section 6. Sludge Loading and Transport.** Agri Environmental shall provide the necessary labor and equipment to efficiently and safely load sludge and to transport sludge away from the City Wastewater Treatment Plant to approved land application disposal sites.

**Section 7. Frequency of Sludge Removal.** Agri Environmental shall remove the sludge at a frequency that the Wastewater Treatment Plant shall not be operationally impaired due to the extent of excessive sludge in the City’s Wastewater Treatment Plant. Agri Environmental shall respond to remove sludge from the City Wastewater Treatment Plant within twenty-four (24) hours of receiving a request to remove sludge from the City.

**Section 8. Determination of Gallons Removed.** Agri Environmental shall provide the City with duplicate copies of the Agri Environmental load sheet which details the following: date of removal, time truck left the Plant, truck number (if any), name of driver, gallons of sludge loaded onto the vehicle, name of farmer and approved field identification number, number of acres acceptable for use in the field. The original load sheet(s) after a load has been removed, transported and applied to land will be signed by an authorized Agri Environmental employee and an authorized City representative prior to billing the City for the quantity of sludge removed. One (1) copy of the load sheet(s) will remain with the City and one (1) copy will remain with Agri Environmental.

**Section 9. Acquisition of Sites for Disposal.** Agri Environmental shall be responsible for locating parcels of land on which City sludge can be applied, and Agri Environmental shall provide the legal description, crop, yield, and size of field on which the sludge shall be disposed prior to any sludge being disposed of on such land..

**Section 10. Land Applications of Sludge.** Agri Environmental shall provide labor and equipment to properly remove, transport and apply the sludge to acceptable land application sites at agronomic rates in accordance with KDHE regulations and in accordance with other federal, state and local laws and regulations.

**Section 11. Monthly Reports.** Agri Environmental shall complete and file in a timely manner reports as required by KDHE. These reports and records shall be maintained for the specified time period as required by KDHE by Agri Environmental and shall be provided to the City on a monthly basis. Reports shall be submitted to the City by the tenth (10<sup>th</sup>) day of each month for sludge removed from the Plant and applied to land during the previous month. KDHE requires an annual sludge report due January 1 of each year, which shall be filed by the City based upon such monthly reports received from Agri Environmental.

**Section 12. Laboratory Analysis.** The City shall obtain sludge samples and be responsible for all 40 C.F.R. § 503 required sludge testing. The City shall provide results to Agri Environmental within ten (10) days of receipt of analysis.

**Section 13. Review of Operations.** Agri Environmental shall allow the City to inspect any and all proposed or approved land application sites used for disposal of the City's sludge. Agri Environmental shall allow the City to monitor daily operations with respect to the disposal of the City's sludge.

**Section 14. Agronomic Services.** Agri Environmental shall provide management services which include the location and permitting of suitable farmland for the exclusive use of the City's sludge. These application sites shall meet the requirements for land application sites as determined by KDHE rules and regulations and federal, state and local laws rules and regulations. Proposed farmland application sites shall be properly documented as specified by KDHE. Agri Environmental shall also be responsible for the soil sampling and analysis for applied sites.

**Section 15. Emergency Response.** In the event of a spill or regulatory problem involving sludge from the City, Agri Environmental shall promptly notify the City. Agri Environmental shall provide for the prompt cleanup of spills that are attributable to Agri Environmental and that occur while Agri Environmental has control of the sludge.

**Section 16. Good Faith.** If Agri Environmental is unable to remove the sludge from the City Wastewater Treatment Plant due to strikes, acts of God or other occurrences not reasonably within the province or control of Agri Environmental, Agri Environmental will not be liable for any additional costs incurred by the City, and Agri Environmental will not be deemed in default under this Agreement unless thirty (30) days after the impediment has been resolved or eliminated Agri Environmental continues to fail or remove the sludge tendered to it.

**Section 17. Indemnification.** Agri Environmental shall indemnify and hold the City, its employees and agents, harmless under this Agreement for all claims, damages, costs or expenses or other liability or loss including injury, death, or damages to any person or property related in any way to the performance of this Agreement to the extent such claims, damages, costs, expenses, liability or loss are not caused by the negligent acts, errors or omissions of the City. This provision shall survive the termination of this Agreement.

**Section 18. Agri Environmental Due Diligence.** Agri Environmental shall exercise the due care in performing its obligations and duties under this Agreement normally and reasonably provided with respect to similar contract services, but Agri Environmental makes no warranty, express or implied, with respect to any services performed hereunder. Agri Environmental shall not be liable for any claim, damage, cost or expense, including attorney fees, caused by malfunction or failure of the Wastewater Treatment Plant or by toxic or hazardous materials entering the Plant and residing in the sludge delivered to Agri Environmental, or any other liability or loss not directly caused by the negligent acts, errors or omissions of Agri Environmental.

**Section 19. Insurance Coverage.** Agri Environmental shall provide and maintain at all times during the term of this Agreement, the following minimum insurance coverage:

(a) Workers Compensation Insurance in compliance with the statues of the State Kansas, which has jurisdiction of Agri Environmental employees engaged in the performance of services hereunder;

(b) Comprehensive General Liability Insurance with a minimum combined single limit of ONE MILLION DOLLARS (\$1,000,000.00), including the broad form property damage endorsement.

(c) Agri Environmental will furnish the City with Certificates of Insurance as evidence that policies providing the required coverages and limits are in full force and effect. Agri Environmental shall name the City as an additional insured on its Comprehensive General Liability Insurance. Such policies shall provide that no less than thirty (30) days advance notice of cancellation, termination, or alteration shall be sent directly to Agri Environmental and the City.

(d) The indemnification set forth at Section 17 of this Agreement shall apply to Agri Environmental removal, transport and disposal of the City's sludge by applying to land.

**Section 20. Responsibility of Fines.** Agri Environmental shall be responsible for the payment of all fines levied by any regulatory agency related to actions taken by Agri Environmental in the removal, transport and disposal of the sludge from the Wastewater Treatment Plant.

**Section 21. Additional Services.** Expenses for removal of sludge from the Wastewater Treatment Plant which are not routine, as a result of flood, fire, act of God, or other force majeure, civil disturbance or other reasons beyond the control of Agri Environmental, are not covered within the scope of this Agreement. If requested, Agri Environmental shall assist the City in obtaining or providing such additional operation services.

**Section 22. Ingress and Egress.** The City shall allow ingress and egress to Agri Environmental to facilitate the removal of sludge from the City's Wastewater Treatment Plant.



**Section 23. Relative Knowledge.** The City shall provide necessary information to Agri Environmental relative to the composition of the sludge that is to be land applied. The City shall provide all data and information related to any City “industrial pretreatment program,” identifying industrial and commercial providers of wastewater to the City Wastewater Treatment Plant.

**Section 24. Sludge Quality.** The City shall provide a good quality sludge, processed to KDHE requirements, to Agri Environmental that is acceptable for land application. The City is responsible for the quality of influent into the City’s Wastewater Treatment Plant, and also for sludge quality. Sludge with toxic or hazardous characteristics is the responsibility of the City pursuant to EPA regulations. The City shall be expected to enforce their sewer use ordinances to ensure that nothing is discharged into the City’s sanitary sewer system to cause the sludge to exceed these standards. The City understands and agrees that Agri Environmental recycles this material into agricultural soil and that it must protect the environment and public health as it does so. In connection therewith, the City shall notify Agri Environmental in a timely manner of sludge quality problems discovered in disposal and in testing, which is the responsibility of the City.

**Section 25. Notice.** Every notice or other communication authorized or required by this Agreement shall not be effective unless same shall be in writing and sent, postage prepaid, by United States registered or certified mail, return receipt requested, directed to the other party at its address hereinafter provided or such other address as either party may designate by notice given from time to time in accordance herewith:

City: City of Maize, Kansas  
10100 Grady Avenue  
PO Box 245  
Maize, Kansas 67101  
Attn: Jocelyn Reid, City Clerk

Agri Environmental: Agri Environmental Services, LLC  
Keenan Kelley  
11515 W. 109<sup>th</sup> N.  
Sedgwick, Kansas 67135

**Section 26. Entire Agreement.** This Agreement represents the entire agreement of the parties and may only be modified or amended in a writing signed by both parties.

**Section 27. State of Kansas.** This Agreement shall be deemed to have been made in Sedgwick County, Kansas, and shall be governed by, and construed in accordance with, the laws of the State of Kansas.

**Section 28. Services Personal.** The services to be performed by the Agri Environmental under the terms of this Agreement are personal and cannot be assigned, sublet or transferred without specific written consent of the City.

**Section 29. Severability.** If any provision, or any portion thereof, contained in this Agreement are held unconstitutional, invalid, or unenforceable, the remainder of this Agreement, or portion thereof, shall be deemed severable, and shall not be affected and shall remain in full force and effect.

**Section 30. Anti-Discrimination Clause.** Agri Environmental agrees: (a) to comply with the Kansas Act Against Discrimination (K.S.A. 44-1001 *et seq.*) and the Kansas Age Discrimination in Employment Act (K.S.A. 44-1111 *et seq.*) and the applicable provisions of the Americans With Disabilities Act (42 U.S.C. 12101 *et seq.*) (ADA) and to not discriminate against any person because of race, religion, color, sex, disability, national origin or ancestry, or age in the admission or access to, or treatment or employment in, its programs or activities; (b) to include in all solicitations or advertisements for employees, the phrase "equal opportunity employer"; (c) to comply with the reporting requirements set out at K.S.A. 44-1031 and K.S.A. 44-1116; (d) to include those provisions in every subcontract or purchase order so that they are binding upon such subcontractor or vendor; (e) that a failure to comply with the reporting requirements of (c) above or if the contractor is found guilty of any violation of such acts by the Kansas Human Rights Commission, such violation shall constitute a breach of contract and the contract may be cancelled, terminated or suspended, in whole or in part, by the City; (f) if it is determined that the contractor has violated applicable provisions of ADA, such violation shall constitute a breach of contract and the contract may be cancelled, terminated or suspended, in whole or in part, by the City.

Parties to this contract understand that the provisions of this Section 30 (with the exception of those provisions relating to the ADA) are not applicable to a contractor who employs fewer than four (4) employees during the term of such contract or whose contracts with the City cumulatively total Five Thousand Dollars (\$5,000.00) or less during the fiscal year.

IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement as of the \_\_\_\_\_ day of \_\_\_\_\_, 2016.

CITY OF MAIZE, KANSAS

AGRI ENVIRONMENTAL SERVICES, LLC

By: \_\_\_\_\_  
Printed Name: Clair Donnelly  
Title: Mayor

By: \_\_\_\_\_  
Printed Name: Keenan Kelley  
Title: \_\_\_\_\_

ATTEST:

\_\_\_\_\_  
Jocelyn Reid, City Clerk

**MAIZE CITY COUNCIL  
REGULAR MEETING  
MONDAY, December 19, 2016**

**AGENDA ITEM #8B**

**ITEM:       AEROMOD INC. AGREEMENT**

**BACKGROUND:**

On August 1, 2016 the City entered into an agreement with MKEC to provide technical and professional services for the construction of the new wastewater plant addition and the refurbishing of the existing plant.

The process is underway and on schedule.

MKEC is providing weekly meeting and/or updates for city staff.

This stage of the development requires an agreement between the City and Aeromod Inc.

The agreement will establish the cost of equipment, design and calculations to be provided by Aeromod Inc.

It is referred to as an "assumable agreement" in that the control of this agreement will be transferred to the General Contractor.

This General Contractor will be identified later through the bid process.

The timing of this agreement is predicated on the fact that the design and calculations provided by Aeromod Inc are required before the final draft of the construction drawing can be completed by MKEC.

The combination of the Aeromod Inc and MKEC documents will be utilized in the bid process in identifying the General Contractor for the construction phase of the project.

**FINANCIAL CONSIDERATIONS:**

Cost for the new or "Expansion" phase is \$852,000 with a \$31,000 option.

Cost for the "Rehab" phase of the current plant is \$207,000 with options of \$47,000.

Not to exceed total cost with options is \$1,137,000

These costs have been reviewed and approved by MKEC engineers.

The Aeromod Inc "Expansion & Rehab" documents are included in the council packet.

Payment for equipment and services will be as services and equipment are required.

The Billing & Payment process includes:

- City staff and MKEC shall review any requests for payment.
- Once reviewed and approved the bill is submitted to KDHE for confirmation.
- The city then receives the KDHE funds (*per loan agreement*) for the payment.

**(over)**

**LEGAL CONSIDERATIONS:**

City Attorney, staff, MKEC and Aeromod Inc are in conceptual agreement as to final form for the agreement. *(a draft is included for your review)*

The finalized signed agreement can be provided to Council via e-mail.

**RECOMMENDATION/ACTION:**

Approve the Aeromod Inc agreement subject to:

- An amount not to exceed \$1,137,000
- The final review of the agreement by the City Attorney
- Endorsement by KDHE
- And authorize the Mayor to sign

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

**AGREEMENT BETWEEN  
BUYER AND SELLER  
FOR PROCUREMENT CONTRACTS**

Prepared by



and

Issued and Published Jointly by



AMERICAN COUNCIL OF ENGINEERING COMPANIES

AMERICAN SOCIETY OF CIVIL ENGINEERS

ASSOCIATED GENERAL CONTRACTORS OF AMERICA

PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE  
*A Practice Division of the*  
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

This Agreement Between Buyer and Seller for Procurement Contracts has been prepared for use with the Standard General Conditions for Procurement Contracts (EJCDC P-700, 2010 Edition). Their provisions are interrelated, and a change in one may necessitate a change in the others. The suggested wording contained in the Suggested Instructions to Bidders for Procurement Contracts (EJCDC P-200, 2010 Edition), the Suggested Bid Form for Procurement Contracts (EJCDC P-400, 2010 Edition), and the Guide to the Preparation of Supplementary Conditions for Procurement Contracts (EJCDC P-800, 2010 Edition) is also carefully interrelated with the wording of this Agreement.

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National Society of Professional Engineers  
1420 King Street, Alexandria, VA 22314-2794  
(703) 684-2882  
[www.nspe.org](http://www.nspe.org)

American Council of Engineering Companies  
1015 15th Street, N.W., Washington, DC 20005  
(202) 347-7474  
[www.acec.org](http://www.acec.org)

American Society of Civil Engineers  
1801 Alexander Bell Drive, Reston, VA 20191-4400  
(800) 548-2723  
[www.asce.org](http://www.asce.org)

Associated General Contractors of America  
2300 Wilson Boulevard, Suite 400, Arlington, VA 22201-3308  
(703) 548-3118  
[www.agc.org](http://www.agc.org)

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NOTE: EJCDC publications may be purchased at [www.ejcdc.org](http://www.ejcdc.org), or from any of the four sponsoring organizations above.

This document contains a suggested format and suggested terms and conditions that will be applicable in most situations. Additional information concerning the use of *this and other* EJCDC Procurement Documents may be found in the Commentary on the EJCDC Procurement Documents (EJCDC P-001, 2010 Edition).

For brevity in the text, the Standard General Conditions for Procurement Contracts (EJCDC P-700, 2010 Edition) will be referred to as "General Conditions."

For brevity in the "Notes to Users" referenced paragraphs of the Suggested Instruction to Bidders (EJCDC P-200, 2010 Edition) are referred to with the prefix "I", those of the Bid Form (EJCDC P-400, 2010 Edition) with the prefix "BF", and those of the General Conditions (P-700, 2010 Edition) or Supplementary Conditions (EJCDC P-800, 2010 Edition) with the prefix "GC" or "SC".

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## AGREEMENT

THIS AGREEMENT is by and between City of Maize, Kansas (“Buyer”) and AERO-MOD, Inc., 7927 US Highway 24, Manhattan, KS 66502-8166 (“Seller”).

Buyer and Seller hereby agree as follows:

### ARTICLE 1 – GOODS AND SPECIAL SERVICES

- 1.01 Seller shall furnish the Goods and Special Services as specified or indicated in the Contract Documents.

### ARTICLE 2 – THE PROJECT

- 2.01 The Project, of which the Goods and Special Services may be the whole or only a part, is identified as follows:

Facility improvements for the Wastewater Treatment Plant to include: 1) 0.600 MGD Expansion, and 2) Existing Basin Rehabilitation

### ARTICLE 3 – ENGINEER

The Contract Documents for the Goods and Special Services have been prepared by MKEC Engineering, Inc. (“Engineer”), which is to act as Buyer's representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with Seller’s furnishing of Goods and Special Services.

### ARTICLE 4 – POINT OF DESTINATION

- 4.01 The Point of Destination is designated as: *5600 N. Maize Road, Maize, KS 67101.*

### ARTICLE 5 – CONTRACT TIMES

#### 5.01 *Time of the Essence*

- A. All time limits for Milestones, if any, including the submittal of Shop Drawings and Samples, the delivery of Goods, and the furnishing of Special Services as stated in the Contract Documents, are of the essence of the Contract.

#### 5.02 *Milestones*

- A. *Date for Submittal of Shop Drawings and Samples:* Seller shall submit all Shop Drawings and Samples required by the Contract Documents to Buyer for Engineer’s review and approval on or before January 13, 2017. It is the intent of the parties that (1) Engineer conduct such review and issue its approval, or a denial accompanied by substantive comments regarding information needed to gain approval, within **14** days of Seller's submittal of such Shop Drawings and Samples; and (2) resubmittals be limited whenever possible. If more than one resubmittal is necessary for reasons not the fault

and beyond the control of Seller, then Seller shall be entitled to seek appropriate relief under Paragraph 7.02.B of the General Conditions.

- B. *Date for Delivery of Goods:* The Goods are to be delivered to the Point of Destination and ready for Buyer's receipt of delivery on (or within a period of 15 days prior to) June, 2017 based on final construction schedule, as coordinated w/construction contractor.

5.03 *Buyer's Final Inspection*

- A. *Days to Achieve Final Inspection:* Buyer shall make its final inspection of the Goods pursuant to Paragraph 8.01.C of the General Conditions within **14** days after Buyer's acknowledgement of receipt of delivery of the Goods and Seller's completion of furnishing Special Services, if any.

5.04 *Liquidated Damages*

- A. Buyer and Seller recognize that Buyer will suffer financial loss if the Goods are not delivered at the Point of Destination and ready for receipt of delivery by Buyer within the times specified in Paragraph 5.02 above, plus any extensions thereof allowed in accordance with Article 7 of the General Conditions. The parties also recognize that the timely performance of services by others involved in the Project is materially dependent upon Seller's specific compliance with the requirements of Paragraph 5.02. Further, they recognize the delays, expense, and difficulties involved in proving the actual loss suffered by Buyer if complete acceptable Goods are not delivered on time. Accordingly, instead of requiring such proof, Buyer and Seller agree that as liquidated damages for delay (but not as a penalty) Seller shall pay Buyer \$500 for each day that expires after the time specified in Paragraph 5.02.B for delivery of acceptable Goods.

## **ARTICLE 6 – CONTRACT PRICE**

- 6.01 Buyer shall pay Seller for furnishing the Goods and Special Services in accordance with the Contract Documents as follows:

- A. The prices stated in Seller's Bid, attached hereto as an exhibit and summarized below.
1. Plant Expansion: \$852,000, plus a \$31,000 option for control improvements (\$883,000 Total)
  2. Basin Rehab: \$207,000, plus a \$36,000 option for control improvements and a \$11,000 option for RAS hood covers (\$254,000 Total)

## **ARTICLE 7 – PAYMENT PROCEDURES**

7.01 *Submittal and Processing of Payment*

- A. Seller shall submit Applications for Payment in accordance with Article 10 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

## 7.02 *Progress Payments; Retainage*

- A. Buyer shall make progress payments on account of the Contract Price on the basis of Seller's Applications for Payment as follows:
1. Upon receipt of the first Application for Payment submitted in accordance with Paragraph 10.01.A.1 of the General Conditions and accompanied by Engineer's recommendation of payment in accordance with Paragraph 10.02.A of the General Conditions, an amount equal to 10 percent of the Contract Price, less such amounts as Engineer may determine in accordance with Paragraph 10.02.A.3 of the General Conditions.
  2. Upon receipt of the second such Application for Payment accompanied by Engineer's recommendation of payment in accordance with Paragraph 10.01.A.2 of the General Conditions, an amount sufficient to increase total payments to Seller to 90 percent of the Contract Price, less such amounts as Engineer may determine in accordance with Paragraph 10.02.A.3 of the General Conditions.

## 7.03 *Final Payment*

- A. Upon receipt of the final Application for Payment accompanied by Engineer's recommendation of payment, Buyer shall pay Seller the amount recommended by Engineer, less any sum Buyer is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages.

## **ARTICLE 8 – INTEREST**

- 8.01 All monies not paid when due as provided in Article 10 of the General Conditions shall bear interest at the statutory rate.

## **ARTICLE 9 – SELLER'S REPRESENTATIONS**

- 9.01 In order to induce Buyer to enter into this Agreement, Seller makes the following representations:
- A. Seller has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents, as applicable to Seller's obligations identified in Article 1 above.
  - B. If required by the Bidding Documents to visit the Point of Destination and site where the Goods are to be installed or Special Services will be provided, or if, in Seller's judgment, any local condition may affect cost, progress, or the furnishing of the Goods and Special Services, Seller has visited the Point of Destination and site where the Goods are to be installed or Special Services will be provided and become familiar with and is satisfied as to the observable local conditions that may affect cost, progress, and the furnishing of the Goods and Special Services.
  - C. Seller is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and the furnishing of the Goods and Special Services.

- D. Seller has carefully studied, considered, and correlated the information known to Seller; information commonly known to sellers of similar goods doing business in the locality of the Point of Destination and the site where the Goods will be installed or where Special Services will be provided; information and observations obtained from Seller's visits, if any, to the Point of Destination and site where the Goods are to be installed or Services will be provided; and any reports and drawings identified in the Bidding Documents regarding the Point of Destination and the site where the Goods will be installed or where Special Services will be provided, with respect to the effect of such information, observations, and documents on the cost, progress, and performance of Seller's obligations under the Contract Documents.
- E. Seller has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Seller has discovered in the Contract Documents, and the written resolution (if any) thereof by Engineer is acceptable to Seller.
- F. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for furnishing Goods and Special Services.

## **ARTICLE 10 – CONTRACT DOCUMENTS**

### *10.01 Contents*

- A. The Contract Documents consist of the following:
  - 1. This Agreement (EJCDC P-520);
  - 2. General Conditions (EJCDC P-700);
  - 3. Exhibits to this Agreement (enumerated as follows):
    - a. Exhibit A-1 to Agreement between Buyer and Seller dated December 2016 , Assignment of Contract; Consent to Assignment; and Acceptance of Assignment.
    - c. Seller's Bid, solely as to the prices set forth therein;
  - 4. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
    - a. Notice to Proceed;
    - b. Change Order(s);
    - c. Work Change Directive(s).
- B. The documents listed in Paragraph 10.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 10.

- D. The Contract Documents may only be amended, or supplemented as provided in Paragraph 3.04 of the General Conditions.

## ARTICLE 11 – MISCELLANEOUS

### 11.01 *Terms*

- A. Terms used in this Agreement will have the meanings indicated in the General Conditions and the Supplementary Conditions.

### 11.02 *Assignment of Contract*

- A. Buyer has the right to assign this Contract for furnishing Goods and Special Services, but only to a person or entity with sufficient ability to satisfy all of Buyer's obligations under this Contract, and Seller hereby consents to such assignment. Forms documenting the assignment of the Contract, and consent of Seller's surety to the assignment, have been executed by Buyer, Seller, and Seller's surety, and are attached as exhibits to this Agreement.

1. The Contract will be executed in the name of Buyer initially, and will be assigned to a construction contractor designated by Buyer. Such construction contractor's responsibilities will include the installation of the Goods. The assignment will occur on the effective date of the agreement between Buyer and the construction contractor, which is expected to occur on or about May 2017. As of the date of acceptance of assignment by the construction contractor, all references in the Contract Documents to Buyer shall mean the designated construction contractor.
2. The assignment of the Contract shall relieve the assignor from all further obligations and liabilities under this Contract. After assignment, Seller shall become a subcontractor or supplier to the assignee and, except as noted herein, all rights, duties, and obligations of Buyer under the Contract shall become the rights, duties, and obligations of the assignee.
3. After assignment:
  - a. All performance warranties, guarantees, and indemnifications required by the Contract Documents will continue to run for the benefit of assignor and, in addition, for the benefit of the assignee. However, if assignor and assignee make the same warranty or guarantee claim, then Seller shall only be liable once for such claim.
  - b. Except as provided in this Paragraph 11.02.A.3.b, all rights, duties, and obligations of Engineer to assignee and Seller under this Contract will cease.
    - 1) Engineer will review Seller's Applications for Payment and make recommendations to assignee for payments as provided in Paragraphs 10.02 and 10.06 of the General Conditions.
    - 2) Upon the written request of either the assignee or Seller, Engineer will issue with reasonable promptness clarifications or interpretations of the Contract

Documents pursuant to the terms of Paragraph 9.02.A of the General Conditions.

- B. No other assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound. Specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by Laws and Regulations). Unless specifically stated to the contrary in any written consent to such an assignment, such an assignment will not release or discharge the assignor from any duty or responsibility under the Contract Documents.

#### 11.03 *Successors and Assigns*

- A. Buyer and Seller each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

#### 11.04 *Severability*

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Buyer and Seller. The Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

#### 11.05 *Seller's Certifications*

- A. Seller certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 11.05:
  1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;
  2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Buyer, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Buyer of the benefits of free and open competition;
  3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Buyer, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
  4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

## 11.06 *Limitations*

- A. Buyer and Seller waive against each other, and against the other's officers, directors, members, partners, employees, agents, consultants, and subcontractors, any and all claims for or entitlement to incidental, indirect, or consequential damages arising out of, resulting from, or related to the Contract. Upon assignment the terms of this Paragraph 11.06.A shall be binding upon the assignee with respect to Seller and assignor. The terms of this mutual waiver do not apply to or limit any claim by either Buyer or Seller against the other based on any of the following: (a) contribution or indemnification, (b) costs, losses, or damages attributable to personal or bodily injury, sickness, disease, or death, or to injury to or destruction of the tangible property of others, (c) intentional or reckless wrongful conduct, or (d) rights conferred by any bond provided by Seller under this Contract.
- B. Upon assignment the terms of this Paragraph 11.06.B shall be binding upon both the assignor and assignee with respect to Seller's liability, and upon Seller with respect to both assignor's and assignee's liabilities. The terms of this mutual limitation do not apply to or limit any claim by either Buyer or Seller against the other based on any of the following: (a) contribution or indemnification with respect to third-party claims, losses, and damages; (b) costs, losses, or damages attributable to personal or bodily injury, sickness, disease, or death, or to injury to or destruction of the tangible property of others, (c) intentional or reckless wrongful conduct, or (d) rights conferred by any bond provided by Seller under this Contract.

## 11.07 *Other Provisions*

IN WITNESS WHEREOF, Buyer and Seller have signed this Agreement. Counterparts have been delivered to Buyer and Seller. All portions of the Contract Documents have been signed or identified by Buyer and Seller or on their behalf.

This Agreement will be effective on \_\_\_\_\_ (which is the Effective Date of the Agreement).

Buyer: CITY OF MAIZE, KANSAS

Seller: AERO-MOD, INC.

By: \_\_\_\_\_  
[Corporate Seal]

By: \_\_\_\_\_  
[Corporate Seal]

Attest: \_\_\_\_\_

Attest: \_\_\_\_\_

Address for giving notice:  
10100 W. Grady Ave.  
Maize, KS 67101  
\_\_\_\_\_

Address for giving notice:  
7927 US Highway 24  
Manhattan, KS 66502-8166  
\_\_\_\_\_

(If Buyer is a corporation, attach evidence of authority to sign. If Buyer is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of Buyer-Seller Agreement.)

Agent for service of process:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(If Seller is a corporation or a partnership, attach evidence of authority to sign.)

Designated Representative:  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Address: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Facsimile: \_\_\_\_\_

Designated Representative:  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Address: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Facsimile: \_\_\_\_\_



**EXHIBIT A-1 to Agreement Between  
Buyer and Seller dated \_\_\_\_**

**ASSIGNMENT OF CONTRACT; CONSENT TO ASSIGNMENT;  
AND ACCEPTANCE OF ASSIGNMENT**

This assignment will be effective on the Effective Date of the Agreement between Buyer and Construction Contractor.

The Contract between City of Maize, Kansas (“Buyer”) and AERO-MOD, Inc. (“Seller”) for furnishing Goods and Special Services under the Contract Documents entitled Maize, Kansas WWTF Proposal 0.600 MGD Expansion & Maize, Kansas WWTF Proposal Existing Rehab is hereby assigned, transferred, and set over to \_\_\_\_\_ (“Construction Contractor”). Construction Contractor shall be totally responsible for the performance of Seller and for the duties, rights and obligations of Buyer, not otherwise retained by Buyer, under the terms of the Contract between Buyer and Seller.

ASSIGNMENT DIRECTED BY: CITY OF MAIZE, KANSAS  
Buyer

(If Buyer is a corporation, attach evidence of authority to sign. If Buyer is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of Buyer-Seller Agreement.)

By: \_\_\_\_\_  
(Signature) (Title)

ASSIGNMENT  
ACKNOWLEDGED AND ACCEPTED BY: AERO-MOD, INC.  
Seller

(If Seller is a corporation, attach evidence of authority to sign.)

By: \_\_\_\_\_  
(Signature) (Title)

ASSIGNMENT ACCEPTED BY: \_\_\_\_\_  
Construction Contractor

(If Construction Contractor is a corporation, attach evidence of authority to sign.)

By: \_\_\_\_\_



**AEROMOD**<sup>®</sup>  
Wastewater Process Solutions

Sequox<sup>®</sup> ClarAstor<sup>®</sup> SR Diffuser Access System

# Maize, KS WWTF Proposal 0.600 MGD Expansion

for

MKEC

December 2016

**Aero-Mod, Inc.**

7927 U.S. Highway 24  
Manhattan, KS 66502 USA  
Ph: (785) 537-4995  
Fax: (785) 537-0813

Specializing in Custom Designed Wastewater Treatment Facilities

**Aero-Mod, Inc.**  
**EQUIPMENT AND SERVICES COST ESTIMATE**

**Project:** Maize, Kansas WWTF Expansion 0.600 mgd  
**Engineer:** MKEC

**Date:** 13-Dec-16  
**Units:** English

**EQUIPMENT SUPPLIED**

**AERATION EQUIPMENT**

- |    |   |                                |
|----|---|--------------------------------|
| 0  | Aeration pd blower/sound enclosure package                      | <b>PHASE 2</b>                 |
| 4  | SEQUOX aeration control butterfly valve, pneumatically-actuated |                                |
| 4  | SEQUOX aeration throttling butterfly valve, gear-operated       |                                |
| 1  | Aeration throttling butterfly valve, gear-operated              |                                |
| 24 | Wall mounted aeration assembly, Model WA-PF6                    | - First Stage Aeration Basins  |
| 24 | Wall mounted aeration assembly, Model WA-PS4-2                  | - Second Stage Aeration Basins |

**SELECTOR TANK EQUIPMENT**

- 1 Aeration throttling butterfly valve, gear-operated
- 4 Wall mounted aeration assembly, Model WAD-HSS2

**CLARIFIER & RAS EQUIPMENT**

- 2 Aero-Mod Split-ClarAator Clarifier System - 960 sf/each

**DIGESTION, SLUDGE HOLDING & WAS EQUIPMENT**

- 2 WAS airlift pump, Model AL-600
- 2 Aeration control butterfly valve, pneumatically-actuated
- 2 Aeration control butterfly valve, gear-operated
- 28 Wall mounted aeration assembly, Model WAD-PS4-2

**ELECTRICAL & CONTROLS EQUIPMENT**

- 1 SEQUOX Process Control Panel w/ Allen Bradley PLC, Model SQC-PLC - 115 V
- 2 IMLR Pump control panels
- 2 Digester Transfer Pump control panels
- 1 Saylor-Beall duplex air compressor system, (2) 3 HP with (1) horiz. 80 gallon tank - 460 V, 3 ph
- 1 Air compressor auto-drain - 115 V wall outlet
- 1 PureGas regenerative desiccant dryer mounted on dry storage tank - 115 V wall outlet
- 1 D.O. Control System - w/ 4 LDO probes

**ANCILLARY EQUIPMENT**

- 495 Wall mounted walkway & handrail, LF
- 2 Wall mounted stop plates & frames
- 2 Guiderail mounted IMLR Pumps
- 2 Guiderail mounted Digester Transfet Pump
- LS Spare Parts
- LS Interior tank installation materials - SS brackets, SS bolts, PVC wall inserts, pneumatic tubing, misc.

**SERVICES**

- LS Freight to jobsite
- LS Aero-Mod equipment dry inspection, two (2) days
- LS Aero-Mod equipment wet start-up, two (2) days
- LS Operator training school - 2 days at Aero-Mod facilities in Manhattan, KS

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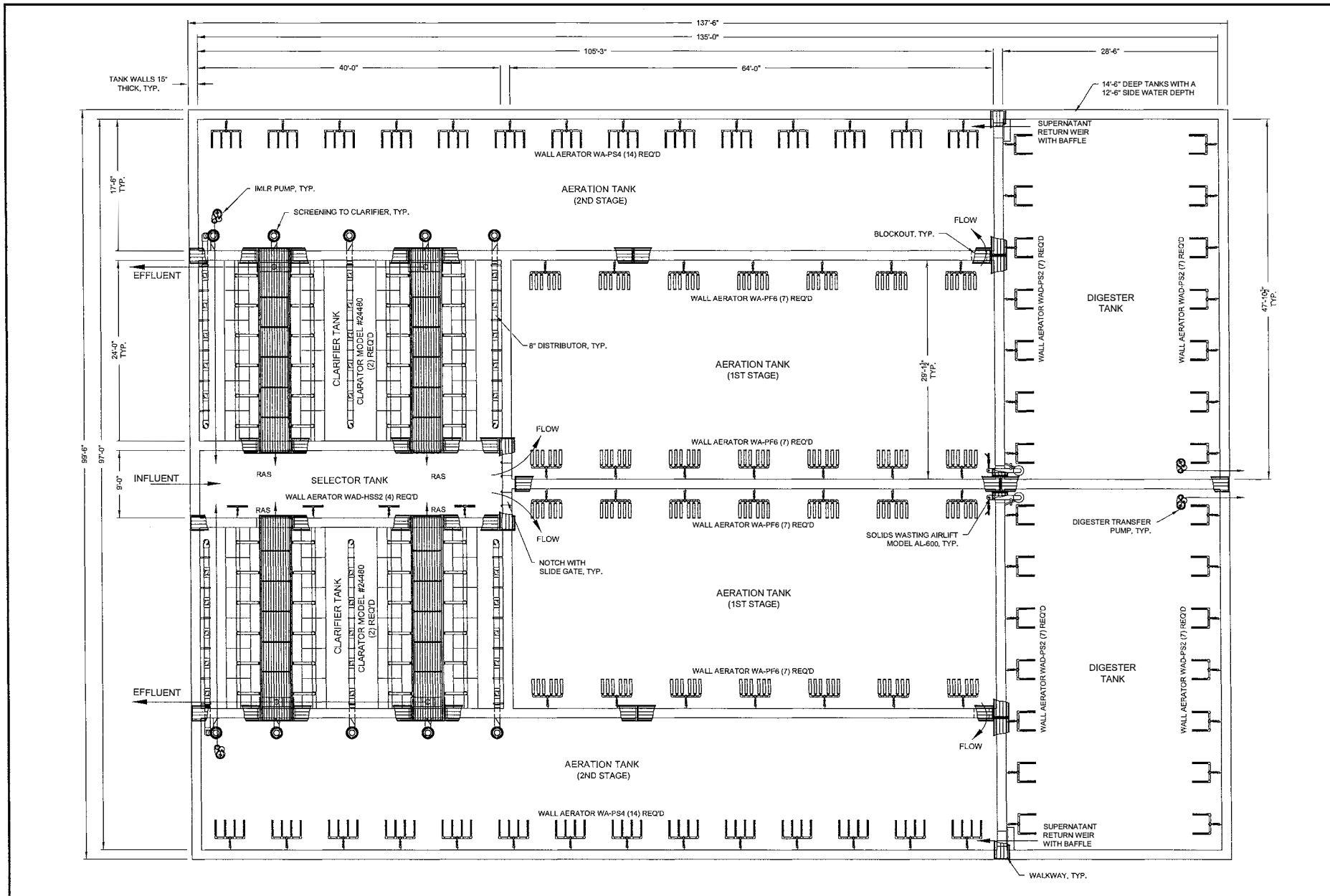
**TOTAL BASE EQUIPMENT COST** **\$852,000**

**OPTIONAL AIR FLOW MANAGEMENT EQUIPMENT**

- 4 Aeration control butterfly valve, electrically-actuated
- 4 Aeration flow conditioner & flow sensor

=====

**TOTAL OPTIONAL EQUIPMENT COST** **\$31,000**



Date: 09/10/15  
 Scale: NTS  
 Title: MAIZE, KS  
 0.600 MGD  
 WASTE WATER TREATMENT PLANT

Drawn by: JUB  
 Chk. by:  
 Title:  
**Aero - Mod, Inc.**  
 PHONE: (785) 537-4895  
 FAX: (785) 537-4813  
 7827 U.S. Highway 24  
 Manhattan, Kansas 66502

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**Aero-Mod, Inc.**  
**ACTIVATED SLUDGE DESIGN CALCULATIONS**

**Project:** Maize, Kansas WWTF Expansion 0.600 mgd  
**Engineer:** MKEC  
**Act. Sludge Process:** SEQUOX

**Date:** 13-Dec-16  
**Units:** English

**DESIGN CONDITIONS & PARAMETERS**

	Influent	Clarifier Effluent	Population Equivalent @0.2lbsBOD/cap	7506
Flow (Q), MGD	<b>0.600</b>		<b>Aeration Basin</b>	
BOD <sub>5</sub> , mg/l	<b>300</b>	<b>10.0</b>	Retention Time, hours	<b>27.7</b>
BOD <sub>5</sub> , lbs/day	1,501	50.0	Aeration Tank Volume, Mgal	0.693
BOD <sub>L</sub> , mg/l	439		MCRT, days	<b>18.0</b>
TSS, mg/l	<b>300</b>	<b>10.0</b>	Wastewater Temperature, °C	10
TSS, lbs/day	1,501	50.0	<b>Aerobic Digester</b>	
Ammonia-N, mg/l	<b>43.6</b>	<b>1.0</b>	Volume, % of Aeration Tank	38.0
Ammonia-N, lbs/day	218.2	5.0	Maximum MLSS, mg/l	12,000
TN, mg/l		<b>8.0</b> **	Maximum MLSS, %	1.20%
TN, lbs/day		40.0	Digester Temperature, °C	10
Phosphorus-P, mg/l	<b>8.0</b>	<b>1.0</b> *	<b>Sludge Holding Tank</b>	
Phosphorus-P, lbs/day	40.0	5.0	Volume, % of Aeration Tank	0.0
Net Alkalinity Loss, mg/l as CaCO <sub>3</sub>		<b>(243)</b>	Maximum MLSS, mg/l	25,000
			Maximum MLSS, %	2.50%

\* Assumes Chemical Addition

\*\* Assumes rDON less than 2 ppm

**PROJECTED OPERATING CONDITIONS - AERATION BASIN**

Mixed Liquor Suspended Solids, mg/l	<b>3,680</b>
Excess MLSS due to Phos-P Uptake/Removal, mg/l	164
Mixed Liquor Volatile Suspended Solids, %	70%
F/M Ratio, lbs BOD <sub>5</sub> /lb MLVSS	0.10
F/M Ratio, lbs BOD <sub>5</sub> /lb MLSS	0.07
Organic Loading, lbs BOD <sub>5</sub> /1000 cf of tank/day	16.2
Oxygen Requirements (Carbonaceous), mg/l/hr	9.35
Oxygen Requirements (Nitrogenous), mg/l/hr	7.07
Solids Production, lbs/day	1,181
WAS - Solids Wasted per Day, lbs/day	1,131
WAS - Solids Wasted per Day, gal/day @ 0.37%	36,842

**PROJECTED OPERATING CONDITIONS - AEROBIC DIGESTER**

Volatile Solids Reduction in Digester, %	32%
Solids Wasted from Digester, lbs/day	879
Mass Solids Yield in Process & Digester per Mass Influent BOD <sub>5</sub> , %	62%
Volume Wasted from Digester, gallons/day	8,786
Digester Sludge Age, days	<b>30</b>
Air Required for Stabilization, cfm	351
Air Required for Mixing @ 30 cfm/1000 cf	1,055

**Aero-Mod, Inc.**  
**AERATION DESIGN CALCULATIONS**

**Project:** Maize, Kansas WWTF Expansion 0.600 mgd  
**Engineer:** MKEC  
**Diffuser Type Used:** Tubular EPDM Fine Bubble

**Date:** 13-Dec-16  
**Units:** English

Q, MGD	0.600	TKN <sub>0</sub> , mg/l	60.0
BOD <sub>0</sub> , mg/l	300	TKN <sub>e</sub> , mg/l	2.0
BOD <sub>e</sub> , mg/l	10	TKN <sub>assimilation</sub> , mg/l	14.5
BOD <sub>rem</sub> , mg/l	300	TKN <sub>rem</sub> , mg/l	60.0
O <sub>2</sub> Requirement, lb O <sub>2</sub> /lb BOD <sub>rem</sub>	1.200	O <sub>2</sub> Requirement, lb O <sub>2</sub> /lb TKN <sub>rem</sub>	4.60

**AERATION REQUIREMENTS - FIRST STAGE**

BOD <sub>oxy</sub> - Oxygen Required for BOD [Q * BOD <sub>rem</sub> * 8.34 * O <sub>2</sub> Req. / 24], lbs O <sub>2</sub> /hr	48.8	<u>Consumption</u>	65%
TKN <sub>oxy</sub> - Oxygen Required for TKN [Q * TKN <sub>rem</sub> * 8.34 * O <sub>2</sub> Req. / 24], lbs O <sub>2</sub> /hr	37.4		65%
Actual Oxygenation Rate (AOR), lbs O <sub>2</sub> /hr	<b>86.2</b>		

Standard Oxygenation Rate (SOR), lbs O<sub>2</sub>/hr **228.0**

$$SOR = [(AOR * C_{s,20}) / (\alpha * \theta^{(T-20)} * (\tau * \Omega * \beta * C_{s,20} - C_L) * F)]$$

Where:

C <sub>s,T,H</sub> Actual Value of D.O. Saturation, mg/l	9.08	
C <sub>s,20</sub> Steady State Value of D.O. Saturation, mg/l	9.08	
α Alpha - Oxygen Transfer Correction Factor for Waste	0.65	
θ Theta - Oxygen Transfer Coefficient	1.024	
T Temperature of Water, °C	20	
τ Oxygen Saturation Value (C <sub>s,T,H</sub> /C <sub>s,20</sub> )	1.000	
β Beta - Salinity-Surface Tension Correction Factor	0.95	
P <sub>H</sub> Atmospheric Pressure at Site Elevation, psi/FASL	13.99	<b>1,350</b>
Ω Omega (P <sub>H</sub> /P <sub>s</sub> )	0.952	
F Fouling Factor	0.85	
C <sub>L</sub> Residual D.O. Concentration, mg/l	2.0	

Air Requirement = [SOR / (Oxygen Density \* TE% \* Diffuser Depth) / 60], scfm **987**

Where:

Oxygen Density, lbs O <sub>2</sub> /cf	0.0175
Transfer Efficiency per Foot of Submergence, %	<b>2.00%</b>
Diffuser Depth Below Water Surface, ft	<b>11.0</b>

Denitrification Credit = [Air Rqmt \* (TKN<sub>oxy</sub> / AOR) \* 50% \* ((TKN<sub>0</sub> - TN<sub>e</sub>) / TKN<sub>0</sub>)], scfm **185**

Where: TN<sub>e</sub> = TKN<sub>0</sub> / 2 (assumed when D.O. control is not used)

**Total Aeration Required in Aeration Basin, scfm 801**

**Air Correction**

$$icfm = scfm / [((T_{std} + 460) / (T_{air} + 460)) * ((P_H - (RH\% * SVP_{T_{air}})) / (14.7 - (RH\%_{std} * SVP_{std}))) * ((P_A / P_H))]$$

Where:

T <sub>std</sub> = 68°F	
RH% <sub>std</sub> = 36%	
SVP <sub>std</sub> = 0.34 psi	
T <sub>air</sub> - Maximum Air Temperature, °F	<b>104</b>
RH% - Maximum Relative Humidity, %	<b>90%</b>
SVP <sub>T<sub>air</sub></sub> - Saturated Vapor Pressure of Air @ T <sub>air</sub> , psi	1.058
P <sub>A</sub> - Actual Atmospheric Pressure after Blower Inlet, psi	13.79

Minimum Air Required for Mixing in First Stage Aeration Basin, cfm	466	Side Roll
Minimum Air Required for Mixing in Second Stage Aeration Basin, cfm	460	Side Roll
Minimum Air Required for Operating Full Plant, cfm (mixing rqmt for 24 hrs)	<b>1,488</b>	

Aeration Pressure, in. H <sub>2</sub> O	168	168
psi, std (does not include blower inlet/outlet)	<b>6.1</b>	<b>6.1</b>

	scfm	<u>Design</u> icfm	<u>Min</u> icfm
Aeration Basin - Fine Bubble	801	971	466
Aeration Basin - Coarse Bubble	724	877	460
Aerobic Digester Tank (sequenced aeration)	528	528	528
Selector Tank	90	90	90
Clarifier RAS Airlift Pumps & Skimmers	120	120	120
Total Air Required	2,263	2,585	1,664
Total Air Available		<b>3,113</b>	

**POWER REQUIREMENTS**

	Unit	Power	Power
Operating Power for Aeration Basin, HP	Blower	54.8	
Operating Power for Digester, HP	Blower	15.7	
Operating Power for Selector Tank, HP	Blower	2.7	
Operating Power for Clarifier, HP	Blower	3.6	
N/A	N/A	0.0	
Operating Power for Pneumatic System, HP	Air Compr.	<u>0.5</u>	
Operating Power Required at Full Loading, HP		<b>77.2</b>	
Minimum Power Required to Operate, HP		<b>46.7</b>	

**Aero-Mod, Inc.**  
**AERATION DESIGN CALCULATIONS**

**Project:** Maize, Kansas WWTF Expansion 0.600 mgd  
**Engineer:** MKEC  
**Diffuser Type Used:** Stainless Steel Coarse Bubble

**Date:** 13-Dec-16  
**Units:** English

**AERATION REQUIREMENTS - SECOND STAGE**

		<u>Consumption</u>
Oxygen Required for BOD [ $Q * BOD_{rem} * 8.34 * O_2 \text{ Req.} / 24$ ], lbs O <sub>2</sub> /hr	26.3	35%
Oxygen Required for TKN [ $Q * TKN_{rem} * 8.34 * O_2 \text{ Req.} / 24$ ], lbs O <sub>2</sub> /hr	20.1	35%
Actual Oxygenation Rate (AOR), lbs O <sub>2</sub> /hr	<b>46.4</b>	

Standard Oxygenation Rate (SOR), lbs O<sub>2</sub>/hr **90.4**

$$SOR = [(AOR * C_{s,20}) / (\alpha * \Theta^{(T-20)} * (\text{Tau} * \Omega * \beta * C_{s,20} - C_L) * F)]$$

Where: C <sub>s,T,H</sub> Actual Value of D.O. Saturation, mg/l	9.08	
C <sub>s,20</sub> Steady State Value of D.O. Saturation, mg/l	9.08	
α Alpha - Oxygen Transfer Correction Factor for Waste	0.75	
Θ Theta - Oxygen Transfer Coefficient	1.024	
T Temperature of Water, °C	20	
Tau Oxygen Saturation Value (C <sub>s,T,H</sub> /C <sub>s,20</sub> )	1.000	
β Beta - Salinity-Surface Tension Correction Factor	0.95	
P <sub>H</sub> Atmospheric Pressure at Site Elevation, psi/FASL	13.99	<b>1,350</b>
Ω Omega (P <sub>H</sub> /P <sub>s</sub> )	0.952	
F Fouling Factor	1.00	
C <sub>L</sub> Residual D.O. Concentration, mg/l	2.0	

Air Requirement = [SOR / (Oxygen Density \* TE% \* Diffuser Depth) / 60], scfm **844**

Where: Oxygen Density, lbs O <sub>2</sub> /cf	0.0175
Transfer Efficiency per Foot of Submergence, %	<b>0.85%</b>
Diffuser Depth Below Water Surface, ft	<b>12.0</b>

Denitrification Credit = [Air Rqmt \* (TKN<sub>oxy</sub> / AOR) \* 50% \* ((TKN<sub>o</sub> - TN<sub>e</sub>) / TKN<sub>o</sub>)], scfm 120

Where: TN<sub>e</sub> = TKN<sub>o</sub> / 2 (assumed when D.O. control is not used)

**Total Aeration Required in Aeration Basin, scfm **724****

**Air Correction**

$$icfm = scfm / [((T_{std} + 460) / (T_{air} + 460)) * ((P_H - (RH\% * SVP_{T_{air}})) / (14.7 - (RH\%_{std} * SVP_{std}))) * ((P_A / P_H))]$$

Where: T <sub>std</sub> = 68°F	
RH% <sub>std</sub> = 36%	
SVP <sub>std</sub> = 0.34 psi	
T <sub>air</sub> - Maximum Air Temperature, °F	<b>104</b>
RH% - Maximum Relative Humidity, %	<b>90%</b>
SVP <sub>T<sub>air</sub></sub> - Saturated Vapor Pressure of Air @ T <sub>air</sub> , psi	1.058
P <sub>A</sub> - Actual Atmospheric Pressure after Blower Inlet, psi	13.79

Minimum Air Required for Mixing in Second Stage Aeration Basin, cfm 460 Side Roll

Aeration Pressure, in. H <sub>2</sub> O	168	168
psi, std (does not include blower inlet/outlet)	<b>6.1</b>	<b>6.1</b>

	<u>Design</u>	<u>Peak</u>
	scfm	icfm
Aeration Basin - Coarse Bubble	724	877

**Aero-Mod, Inc.**  
**CLARIFIER DESIGN CALCULATIONS**

**Project:** Maize, Kansas WWTF Expansion 0.600 mgd  
**Engineer:** MKEC  
**Clarifier Type Used:** Split-ClarAator

**Date:** 13-Dec-16  
**Units:** English

**FLOW CONDITIONS**

Design Flow, MGD	0.600	
Peaking Factor, hourly	4.50	2.700 MGD
Duration, min	60	
Peaking Factor, sustained	3.00	1.800 MGD
Aeration Tank Volume, Mgal	0.693	
MLSS, mg/l	3,680	
Avg. RAS Recycle Rate, %	150%	

**EQUIPMENT SIZING & SELECTION**

Number of Clarifiers	<b>2</b>	Surface Area per Clarifier, sf	960
Clarifier Unit Model	<b>24480</b>	Total Surface Area, sf	<b>1,920</b>
Bridge Length, ft	24	Total Weir Length, ft	180
Clarifier Unit Width, ft	20	Tank Wall Depth, ft	14.5
Number of Units per Clarifier	2	Tank Water Depth, ft	12.5

**SURFACE OVERFLOW RATE**

	<u>Design</u>
Design Flow, gpd/sf	<b>313</b>
Peak Day Flow, gpd/sf	938
Peak Hour Flow, gpd/sf	1,000 * Max allowed to leave clarifier
Max. Flow Allowed Through Clarifier Orifice, gpd/sf	1,000 * Max allowed to leave clarifier

**WEIR OVERFLOW RATE**

Design Flow, gpd/lin. ft	<b>3,333</b>
Peak Flow, gpd/lin. ft	10,667

**SOLIDS LOADING RATE**

Design Flow, lbs/day/sf	<b>24.0</b>
Peak Flow, lbs/day/sf	45.1

**RETENTION TIME - including RAS**

Design Flow, hr	<b>2.9</b>
Peak Flow, hr	1.5



# Aero-Mod, Inc.

## TANKAGE DESIGN CALCULATIONS

**Project:** Maize, Kansas WWTF Expansion 0.600 mgd  
**Engineer:** MKEC  
**Tank Construction:** Cast-in-Place Concrete

**Date:** 13-Dec-16  
**Units:** English

### SELECTOR TANK

<b>Anoxic Selector</b>	Volume Required, gal	<b>40,833</b>	
Number of Tanks	2	Tank Width, ft	9.0
Tank Wall Height, ft	14.5	Tank Length, ft	40.0
Tank Water Depth, ft	12.5	Total Volume, gallons	<b>67,320</b>
Freeboard, ft	2.0	Retention Time (Design + RAS), min.	65

### AERATION TANK

	Volume Selected, gal	<b>692,500</b>	
Tank Wall Height, ft	14.5	Number of Trains	2
Tank Water Depth, ft	12.5	Number of Stages	2
	<u>Stage 1</u>	<u>Stage 2</u>	
	Number of Tanks	2	Number of Tanks
	Tank Length, ft	64.0	Tank Length, ft
	Tank Width, ft	29.125	Tank Width, ft
	Area of Each Tank, sf	1,864	Area of Each Tank, sf
	Total Volume, gallons	<b>348,568</b>	Total Volume, gallons
			<b>344,431</b>
	Total volume provided, gal	<b>692,999</b>	

### CLARIFIER TANK

Number of Tanks	2	Tank Width, ft	40.0
Tank Wall Height, ft	14.5	Tank Length, ft	24.0
Tank Water Depth, ft	12.5	Total Volume, gallons	<b>179,520</b>

### AEROBIC DIGESTER TANK

	Volume Selected, gal	<b>263,150</b>	
Number of Tanks	2	Tank Width, ft	47.875
Tank Wall Height, ft	14.5	Tank Length, ft	28.5
Tank Water Depth, ft	13.0	Total Volume, gallons	<b>265,356</b>

### OVERALL TANKAGE DIMENSIONS

Total Length, ft	137.5	Wall Thickness, in	15.0
Total Width, ft	99.5	Floor Thickness, in	18.0
Total Area, sf	13,681	Total Concrete for Walls, cy	<b>777</b>
Total Wall Length, LF	1,158	Total Concrete for Slab, cy	<b>787</b>
		Total Grout for Clarifier, cy	<b>121</b>



**AEROMOD**<sup>®</sup>  
Wastewater Process Solutions

Sequox<sup>®</sup> ClarAstor<sup>®</sup> SR Diffuser Access System

# Maize, KS WWTF Proposal Existing - Rehab

for

MKEC

December 2016

Specializing in Custom Designed Wastewater Treatment Facilities

**Aero-Mod, Inc.**

7927 U.S. Highway 24  
Manhattan, KS 66502 USA  
Ph: (785) 537-4995  
Fax: (785) 537-0813

**Aero-Mod, Inc.**  
**EQUIPMENT AND SERVICES COST ESTIMATE**

**Project:** Maize, Kansas Existing WWTF - Rehab  
**Engineer:** MKEC

**Date:** 13-Dec-16  
**Units:** English

**EQUIPMENT SUPPLIED**

**AERATION EQUIPMENT**

- 2 SEQUOX aeration control butterfly valve, pneumatically-actuated
- 2 SEQUOX aeration throttling butterfly valve, gear-operated
- 18 Wall mounted aeration assembly, Model WA-PF4 - First Stage Aeration Basins
- 12 Wall mounted aeration assembly, Model WA-PS2 - Second Stage Aeration Basins
- 75 Fine Bubble diffusers - First Stage Aeration Basins

**CLARIFIER MODIFICATION EQUIPMENT**

- 4 Cold Weather Bypass Kits
- 24 RAS Modificaton Kits
- 6 Inlet Screen Kits

**DIGESTION, SLUDGE HOLDING & WAS EQUIPMENT**

- 2 WAS airlift pump, Model AL-600
- 1 WAS submersible pump, 2.7 HP - 230/460 V, 3 ph
- 1 Telescoping decanting valve, stainless steel - 6"

**ELECTRICAL & CONTROLS EQUIPMENT**

- 1 D.O. Controller and 4 probes

**ANCILLARY EQUIPMENT**

- 115 Wall mounted walkway and handrail
- 2 Guiderail mounted IMLR Pumps
- 1 Guiderail mounted Digester Transfet Pump
- LS Spare Parts
- LS Interior tank installation materials - SS brackets, SS bolts, PVC wall inserts, pneumatic tubing, misc.

**SERVICES**

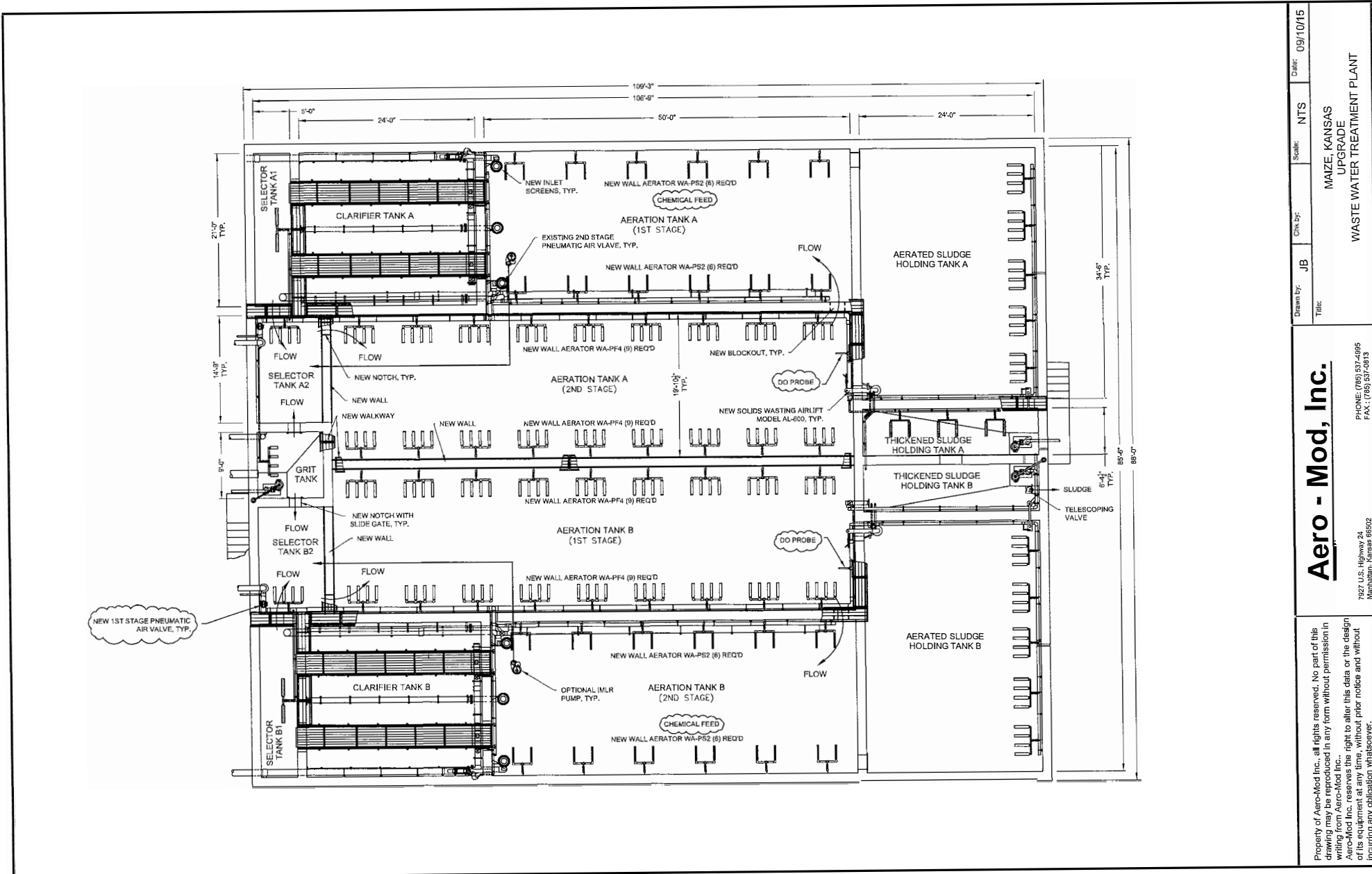
- LS Freight to jobsite
- LS Aero-Mod equipment dry inspection, two (2) days
- LS Aero-Mod equipment wet start-up, two (2) days
- LS Operator training school - 2 days at Aero-Mod facilities in Manhattan, KS

**TOTAL BASE EQUIPMENT COST** =====  
**\$207,000**

**OPTIONAL AIR FLOW MANAGEMENT EQUIPMENT**

- 4 Aeration control butterfly valve, electrically-actuated
- 4 Aeration flow conditioner & flow sensor
- 4 Aeration throttling butterfly valve, gear-operated **\$ 36,000**
  
- 24 RAS Suction hood kits Converts to New fiberglass style hood **\$ 11,000**

**TOTAL OPTIONAL EQUIPMENT COST** =====  
**\$ 47,000**



Date: 09/10/15  
 Scale: NTS  
 Title: MAIZE, KANSAS UPGRADE WASTE WATER TREATMENT PLANT

Drawn by: JB  
 Checked by:  
 Title: Aero - Mod, Inc.  
 PHONE: (785) 832-4695  
 FAX: (785) 832-6916  
 7927 U.S. Highway 24  
 Manhattan, Kansas 66502

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# Aero-Mod, Inc.

## ACTIVATED SLUDGE DESIGN CALCULATIONS

**Project:** Maize, Kansas Existing WWTF - Rehab  
**Engineer:** MKEC  
**Act. Sludge Process:** SEQUOX

**Date:** 13-Dec-16  
**Units:** English

### DESIGN CONDITIONS & PARAMETERS

	Influent	Clarifier Effluent		
Flow (Q), MGD	<b>0.400</b>			<b>Population Equivalent @0.2lbsBOD/cap 5004</b>
BOD <sub>5</sub> , mg/l	<b>300</b>	<b>10.0</b>		<b>Aeration Basin</b>
BOD <sub>5</sub> , lbs/day	1,001	33.4		Retention Time, hours <b>27.7</b>
BOD <sub>L</sub> , mg/l	439			Aeration Tank Volume, Mgal 0.462
TSS, mg/l	<b>300</b>	<b>10.0</b>		MCRT, days <b>18.0</b>
TSS, lbs/day	1,001	33.4		Wastewater Temperature, °C 10
Ammonia-N, mg/l	<b>43.6</b>	<b>1.0</b>		<b>Aerobic Digester</b>
Ammonia-N, lbs/day	145.4	3.3		Volume, % of Aeration Tank 32.0
TN, mg/l		<b>8.0 **</b>		Maximum MLSS, mg/l 12,000
TN, lbs/day		26.7		Maximum MLSS, % 1.20%
Phosphorus-P, mg/l	<b>8.0</b>	<b>1.0 *</b>		Digester Temperature, °C 10
Phosphorus-P, lbs/day	26.7	3.3		<b>Sludge Holding Tank</b>
Net Alkalinity Loss, mg/l as CaCO <sub>3</sub>		<b>(243)</b>		Volume, % of Aeration Tank 0.0
				Maximum MLSS, mg/l 25,000
				Maximum MLSS, % 2.50%

\* Assumes Chemical Addition

\*\* Assumes rDON less than 2 ppm

### PROJECTED OPERATING CONDITIONS - AERATION BASIN

Mixed Liquor Suspended Solids, mg/l	<b>3,680</b>
Excess MLSS due to Phos-P Uptake/Removal, mg/l	164
Mixed Liquor Volatile Suspended Solids, %	70%
F/M Ratio, lbs BOD <sub>5</sub> /lb MLVSS	0.10
F/M Ratio, lbs BOD <sub>5</sub> /lb MLSS	0.07
Organic Loading, lbs BOD <sub>5</sub> /1000 cf of tank/day	16.2
Oxygen Requirements (Carbonaceous), mg/l/hr	9.35
Oxygen Requirements (Nitrogenous), mg/l/hr	7.07
Solids Production, lbs/day	787
WAS - Solids Wasted per Day, lbs/day	754
WAS - Solids Wasted per Day, gal/day @ 0.37%	24,561

### PROJECTED OPERATING CONDITIONS - AEROBIC DIGESTER

Volatile Solids Reduction in Digester, %	31%
Solids Wasted from Digester, lbs/day	591
Mass Solids Yield in Process & Digester per Mass Influent BOD <sub>5</sub> , %	62%
Volume Wasted from Digester, gallons/day	5,902
Digester Sludge Age, days	<b>25</b>
Air Required for Stabilization, cfm	228
Air Required for Mixing @ 30 cfm/1000 cf	593

**Aero-Mod, Inc.**  
**AERATION DESIGN CALCULATIONS**

**Project:** Maize, Kansas Existing WWTF - Rehab  
**Engineer:** MKEC  
**Diffuser Type Used:** Tubular EPDM Fine Bubble

**Date:** 13-Dec-16  
**Units:** English

Q, MGD	0.400	TKN <sub>0</sub> , mg/l	60.0
BOD <sub>0</sub> , mg/l	300	TKN <sub>e</sub> , mg/l	2.0
BOD <sub>e</sub> , mg/l	10	TKN <sub>assimilation</sub> , mg/l	14.5
BOD <sub>rem</sub> , mg/l	300	TKN <sub>rem</sub> , mg/l	60.0
O <sub>2</sub> Requirement, lb O <sub>2</sub> /lb BOD <sub>rem</sub>	1.200	O <sub>2</sub> Requirement, lb O <sub>2</sub> /lb TKN <sub>rem</sub>	4.60

**AERATION REQUIREMENTS - FIRST STAGE**

		<u>Consumption</u>
BOD <sub>oxy</sub> - Oxygen Required for BOD [Q * BOD <sub>rem</sub> * 8.34 * O <sub>2</sub> Req. / 24], lbs O <sub>2</sub> /hr	32.5	65%
TKN <sub>oxy</sub> - Oxygen Required for TKN [Q * TKN <sub>rem</sub> * 8.34 * O <sub>2</sub> Req. / 24], lbs O <sub>2</sub> /hr	24.9	65%
Actual Oxygenation Rate (AOR), lbs O <sub>2</sub> /hr	<b>57.4</b>	

Standard Oxygenation Rate (SOR), lbs O<sub>2</sub>/hr **152.0**  
 $SOR = [(AOR * C_{s,20}) / (\alpha * \theta^{(T-20)} * (\tau * \Omega * \beta * C_{s,20} - C_L) * F)]$

Where: C <sub>s,T,H</sub> Actual Value of D.O. Saturation, mg/l	9.08	
C <sub>s,20</sub> Steady State Value of D.O. Saturation, mg/l	9.08	
α Alpha - Oxygen Transfer Correction Factor for Waste	0.65	
θ Theta - Oxygen Transfer Coefficient	1.024	
T Temperature of Water, °C	20	
τ Oxygen Saturation Value (C <sub>s,T,H</sub> /C <sub>s,20</sub> )	1.000	
β Beta - Salinity-Surface Tension Correction Factor	0.95	
P <sub>H</sub> Atmospheric Pressure at Site Elevation, psi/FASL	13.99	<b>1,350</b>
Ω Omega (P <sub>H</sub> /P <sub>s</sub> )	0.952	
F Fouling Factor	0.85	
C <sub>L</sub> Residual D.O. Concentration, mg/l	2.0	

Air Requirement = [SOR / (Oxygen Density \* TE% \* Diffuser Depth) / 60], scfm **658**

Where: Oxygen Density, lbs O <sub>2</sub> /cf	0.0175
Transfer Efficiency per Foot of Submergence, %	<b>2.00%</b>
Diffuser Depth Below Water Surface, ft	<b>11.0</b>

Denitrification Credit = [Air Rqmt \* (TKN<sub>oxy</sub> / AOR) \* 50% \* ((TKN<sub>0</sub> - TN<sub>e</sub>) / TKN<sub>0</sub>)], scfm **124**

Where: TN<sub>e</sub> = TKN<sub>0</sub> / 2 (assumed when D.O. control is not used)

**Total Aeration Required in Aeration Basin, scfm 534**

**Air Correction**

$icfm = scfm / [((T_{std} + 460) / (T_{air} + 460)) * ((P_H - (RH\% * SVP_{T_{air}})) / (14.7 - (RH\%_{std} * SVP_{std}))) * ((P_A / P_H))]$

Where: T <sub>std</sub> = 68°F	
RH% <sub>std</sub> = 36%	
SVP <sub>std</sub> = 0.34 psi	
T <sub>air</sub> - Maximum Air Temperature, °F	<b>104</b>
RH% - Maximum Relative Humidity, %	<b>90%</b>
SVP <sub>T<sub>air</sub></sub> - Saturated Vapor Pressure of Air @ T <sub>air</sub> , psi	1.058
P <sub>A</sub> - Actual Atmospheric Pressure after Blower Inlet, psi	13.79

Minimum Air Required for Mixing in First Stage Aeration Basin, cfm	354	Side Roll
Minimum Air Required for Mixing in Second Stage Aeration Basin, cfm	263	Side Roll
Minimum Air Required for Operating Full Plant, cfm (mixing rqmt for 24 hrs)	<b>900</b>	

Aeration Pressure, in. H <sub>2</sub> O	168	168
psi, std (does not include blower inlet/outlet)	<b>6.1</b>	<b>6.1</b>

	scfm	<u>Design</u> icfm	<u>Peak</u> icfm
Aeration Basin - Fine Bubble	534	647	
Aeration Basin - Coarse Bubble	483	585	
Aerobic Digester Tank (sequenced aeration)	296	296	
Selector Tank	26	26	
Clarifier RAS Airlift Pumps & Skimmers	60	60	
Total Air Required	1,399	1,614	
Total Air Available		<b>1,910</b>	

**POWER REQUIREMENTS**

	Unit	Power	Power
Operating Power for Aeration Basin, HP	Blower	103.8	
Operating Power for Digester, HP	Blower	25.0	
Operating Power for Selector Tank, HP	Blower	2.2	
Operating Power for Clarifier, HP	Blower	5.1	
N/A	N/A	0.0	
Operating Power for Pneumatic System, HP	Air Compr.	<b>0.5</b>	
Operating Power Required at Full Loading, HP		<b>136.5</b>	
Minimum Power Required to Operate Full Plant, HP		<b>82.5</b>	

**Aero-Mod, Inc.**  
**AERATION DESIGN CALCULATIONS**

**Project:** Maize, Kansas Existing WWTF - Rehab  
**Engineer:** MKEC  
**Diffuser Type Used:** Stainless Steel Coarse Bubble

**Date:** 13-Dec-16  
**Units:** English

**AERATION REQUIREMENTS - SECOND STAGE**

		<u>Consumption</u>
Oxygen Required for BOD [ $Q * BOD_{rem} * 8.34 * O_2 \text{ Req.} / 24$ ], lbs $O_2$ /hr	17.5	35%
Oxygen Required for TKN [ $Q * TKN_{rem} * 8.34 * O_2 \text{ Req.} / 24$ ], lbs $O_2$ /hr	13.4	35%
Actual Oxygenation Rate (AOR), lbs $O_2$ /hr	<b>30.9</b>	

Standard Oxygenation Rate (SOR), lbs  $O_2$ /hr **60.3**

$$SOR = [(AOR * C_{s,20}) / (\alpha * \Theta^{(T-20)} * (\text{Tau} * \Omega * \beta * C_{s,20} - C_L) * F)]$$

Where: $C_{s,T,H}$ Actual Value of D.O. Saturation, mg/l	9.08	
$C_{s,20}$ Steady State Value of D.O. Saturation, mg/l	9.08	
$\alpha$ Alpha - Oxygen Transfer Correction Factor for Waste	0.75	
$\Theta$ Theta - Oxygen Transfer Coefficient	1.024	
T Temperature of Water, °C	20	
Tau Oxygen Saturation Value ( $C_{s,T,H}/C_{s,20}$ )	1.000	
$\beta$ Beta - Salinity-Surface Tension Correction Factor	0.95	
$P_H$ Atmospheric Pressure at Site Elevation, psi/FASL	13.99	<b>1,350</b>
$\Omega$ Omega ( $P_H/P_s$ )	0.952	
F Fouling Factor	1.00	
$C_L$ Residual D.O. Concentration, mg/l	2.0	

Air Requirement =  $[SOR / (\text{Oxygen Density} * \text{TE}\% * \text{Diffuser Depth}) / 60]$ , scfm **563**

Where: Oxygen Density, lbs $O_2$ /cf	0.0175
Transfer Efficiency per Foot of Submergence, %	<b>0.85%</b>
Diffuser Depth Below Water Surface, ft	<b>12.0</b>

Denitrification Credit =  $[\text{Air Rqmt} * (\text{TKN}_{oxy} / \text{AOR}) * 50\% * ((\text{TKN}_o - \text{TN}_e) / \text{TKN}_o)]$ , scfm 80

Where:  $TN_e = \text{TKN}_o / 2$  (assumed when D.O. control is not used)

**Total Aeration Required in Aeration Basin, scfm 483**

**Air Correction**

$$icfm = scfm / [((T_{std} + 460) / (T_{air} + 460)) * ((P_H - (\text{RH}\% * \text{SVP}_{Tair})) / (14.7 - (\text{RH}\%_{std} * \text{SVP}_{std}))) * ((P_A / P_H))]$$

Where: $T_{std} = 68^\circ\text{F}$	
$\text{RH}\%_{std} = 36\%$	
$\text{SVP}_{std} = 0.34 \text{ psi}$	
$T_{air}$ - Maximum Air Temperature, °F	<b>104</b>
RH% - Maximum Relative Humidity, %	<b>90%</b>
$\text{SVP}_{Tair}$ - Saturated Vapor Pressure of Air @ $T_{air}$ , psi	1.058
$P_A$ - Actual Atmospheric Pressure after Blower Inlet, psi	13.79

Minimum Air Required for Mixing in Second Stage Aeration Basin, cfm 263 Side Roll

Aeration Pressure, in. $H_2O$	168	168
psi, std (does not include blower inlet/outlet)	<b>6.1</b>	<b>6.1</b>

	<u>Design</u>	<u>Peak</u>
	scfm	icfm
Aeration Basin - Coarse Bubble	483	585

# Aero-Mod, Inc.

## CLARIFIER DESIGN CALCULATIONS

**Project:** Maize, Kansas Existing WWTF - Rehab  
**Engineer:** MKEC  
**Clarifier Type Used:** Split-ClarAtoR

**Date:** 13-Dec-16  
**Units:** English

### FLOW CONDITIONS

Design Flow, MGD	0.400	
Peaking Factor, hourly	3.00	1.200 MGD
Duration, min	60	
Peaking Factor, sustained	2.00	0.800 MGD
Aeration Tank Volume, Mgal	0.462	
MLSS, mg/l	3,680	
Avg. RAS Recycle Rate, %	150%	

### EQUIPMENT SIZING & SELECTION

Number of Clarifiers	<b>2</b>	Surface Area per Clarifier, sf	504
Clarifier Unit Model	<b>24504</b>	Total Surface Area, sf	<b>1,008</b>
Bridge Length, ft	24	Total Weir Length, ft	90
Clarifier Unit Width, ft	21	Tank Wall Depth, ft	14.0
Number of Units per Clarifier	1	Tank Water Depth, ft	12.5

### SURFACE OVERFLOW RATE

	<u>Design</u>
Design Flow, gpd/sf	<b>397</b>
Peak Day Flow, gpd/sf	794
Peak Hour Flow, gpd/sf	1,000 * Max allowed to leave clarifier
Max. Flow Allowed Through Clarifier Orifice, gpd/sf	1,000 * Max allowed to leave clarifier

### WEIR OVERFLOW RATE

Design Flow, gpd/lin. ft	<b>4,444</b>
Peak Flow, gpd/lin. ft	11,200

### SOLIDS LOADING RATE

Design Flow, lbs/day/sf	<b>30.4</b>
Peak Flow, lbs/day/sf	49.0

### RETENTION TIME - including RAS

Design Flow, hr	<b>2.3</b>
Peak Flow, hr	1.4



# Aero-Mod, Inc.

## TANKAGE DESIGN CALCULATIONS

**Project:** Maize, Kansas Existing WWTF - Rehab  
**Engineer:** MKEC  
**Tank Construction:** Cast-in-Place Concrete

**Date:** 13-Dec-16  
**Units:** English

### SELECTOR TANK

#### Selector

Number of Tanks	2	Tank Width, ft	9.0
Tank Wall Height, ft	14.0	Tank Length, ft	14.8
Tank Water Depth, ft	12.0	Total Volume, gallons	<b>23,831</b>
Freeboard, ft	2.0		

#### Selector

Number of Tanks	2	Tank Width, ft	5.0
Tank Wall Height, ft	14.0	Tank Length, ft	21.0
Tank Water Depth, ft	12.5	Total Volume, gallons	<b>19,635</b>
Freeboard, ft	2.0		

### AERATION TANK

Volume Selected, gal      **461,667**

Tank Wall Height, ft	14.0	Number of Trains	2
Tank Water Depth, ft	12.5	Number of Stages	2

<u>Stage 1</u>		<u>Stage 2</u>	
Number of Tanks	2	Number of Tanks	2
Tank Length, ft	71.3	Tank Length, ft	50.000
Tank Width, ft	19.875	Tank Width, ft	21.0
Area of Each Tank, sf	1,416	Area of Each Tank, sf	1,050
Total Volume, gallons	<b>264,810</b>	Total Volume, gallons	<b>196,350</b>

Total volume provided, gal      **461,160**

### CLARIFIER TANK

Number of Tanks	2	Tank Width, ft	21.0
Tank Wall Height, ft	14.0	Tank Length, ft	24.0
Tank Water Depth, ft	12.5	Total Volume, gallons	<b>94,248</b>

### AEROBIC DIGESTER TANK

Volume Selected, gal      **147,733**

Number of Tanks	2	Tank Width, ft	34.250
Tank Wall Height, ft	14.0	Tank Length, ft	24.0
Tank Water Depth, ft	13.0	Total Volume, gallons	<b>159,863</b>

### OVERALL TANKAGE DIMENSIONS

Total Length, ft	109.3	Wall Thickness, in	15.0
Total Width, ft	88.0	Floor Thickness, in	15.0
Total Area, sf	9,614	Total Concrete for Walls, cy	<b>65</b>
Total Wall Length, LF	<b>NEW      101</b>	Total Concrete for Slab, cy	<b>0</b>
		Total Grout for Clarifier, cy	<b>0</b>

# December 2016



## Monthly Council Report

### Department Highlights

- Overall Department activities are functioning normal.
- Sean McCormick has been hired to fill our remaining full-time patrol officer position.
- One of our patrol units was damaged during a call involving a stolen car. The suspect attempted to escape by ramming our patrol unit causing significant damage to both vehicles. Our vehicle is currently at Auto Craft and is being assessed by our insurance carrier.
- Detective Piper has been working several very involved cases this month. One is a sex crimes case that was presented to the district attorney and the other is a financial fraud case involving numerous jurisdictions, victims and suspects. Detective Piper and other officers have devoted copious amounts of time to the investigation of the cases and uncovered many open crimes that would have otherwise remained unsolved. We are fortunate to have Detective Piper as a part of our team.

**Budget status: N/A**

**Major purchases:  
None**

#### Current Staff Levels.

11 Full-time  
 2 Part-time  
 2 Reserve  
 2 Reserve -Vacant

#### Monthly Activities

October Police Reports - 958  
 October calls for service - 481

#### Community Policing:

Working on holiday food drives and assisting needy families.

## PUBLIC WORKS REPORT 12-13--2016

### Regular Work

- Graded 61<sup>st</sup> and north Tyler Road. Pick up and burn brush.
- Pick up and help Sue distribute commodities.
- We do locates, check the water and lift stations every day. Matt has had some new water line maps made for KDHE and for us so that we can locate and sample water over a more diverse range of the city. KDHE wants this so that our water samples are a better example of the whole city.

### Special Projects

- We have several meetings scheduled for this week and beyond for the WWTP expansion. Hope to get that project underway soon.

This was a huge year for many accomplishments in the city of Maize. Here are just a few:

- \* New Maintenance Shop
- \* New material storage bins
- \* New Splash Park
- \* New Restrooms being constructed at the Park
- \* Paving of 61<sup>st</sup> north – Tyler to Ridge
- \* Paving of Tyler Road – 53<sup>rd</sup> to 61<sup>st</sup>.
- \* New Street light at 61<sup>st</sup> and Tyler Road
- \* Paving of 37<sup>th</sup> from maize Road to 119<sup>th</sup>.
- \* Refurbishing of the Community Building
- \* Total renovation of the front of the Cemetery
- \* Sidewalk on Irma from James west to the end
- \* Slurry Seal Gertz Addition and Albert St

Ron Smothers

Public Works Director

## **City Engineer's Report**

**12/19/2016**

### **Maize Middle School**

The exterior work on the "Cafetorium" is continuing at a rapid pace and looks great.

### **Baxter Dental**

Occupancy expected next week.

### **Heartland Credit Union**

Building is almost completely enclosed. City has installed water meter.

### **Weniniger Storage Units**

Currently installing security fencing.

### **Aero-Tech**

Siding is done and roof is expected to be completed this week; completely enclosing the building.

### **Watercress Villas**

In the process of installing rough-in plumbing. Storm water piping to our City Pond has been completed. Several of the slabs are poured. Parking and driveways will be installed before the framing.

### **Restrooms**

Heating and Air is done. Conduit is installed for the security system. Siding on south side is complete. Soffits and siding on north side has started.

**PLANNING ADMINISTRATOR'S  
REPORT**

**DATE:** December 19, 2016

**TO:** Maize City Council Members

**FROM:** Kim Edgington, Planning Administrator

**RE:** Regular December Council Meeting

The following is a summary intended to keep the Council apprised of the status of ongoing planning projects.

1. Watercress Apartment development – Infrastructure construction continues with an anticipated opening date of late spring/early summer 2017.
2. Comprehensive Plan Update – Gould Evans attended the December 1<sup>st</sup> Planning Commission meeting for a stakeholders meeting with the Commissioners. Gould Evans presented their findings to-date and brainstormed with the Commission about the next phase of public involvement in the Comprehensive Planning process. The consultants are now preparing a web-based community survey and will have a draft for staff to review in late December.
3. General planning issues – I continue to meet, both on the phone and in person, with citizens and developer's representatives requesting information on general planning matters, such as what neighboring property owners are planning to do, what they are allowed to do on their property, and what the process is for submitting various applications and materials to the Planning Commission.



**City Clerk Report  
REGULAR COUNCIL MEETING  
December 19, 2016**

Year to date status (Through 11/30/16):

<b>General Fund –</b>			
	Budget	YTD	
Rev.	\$3,313,469	\$3,287,425	99.21%
Exp.	\$3,534,297	\$3,350,528	94.80%
<b>Streets –</b>			
Rev.	\$303,518	\$ 300,845	99.12%
Exp.	\$302,000	\$ 282,380	93.50%
<b>Wastewater Fund-</b>			
Rev.	\$847,000	\$ 843,000	99.53%
Exp.	\$763,200	\$ 721,001	94.47%
<b>Water Fund-</b>			
Rev.	\$870,488	\$ 857,502	98.51%
Exp.	\$837,540	\$ 719,605	85.92%

**Health & Dental Benefits**

Per Council's request, here are the 2016 numbers (through 11/30/2016) for employee health, dental, and life (including accidental death and short-term disability).

	<u>City Portion</u>	<u>Employee Portion</u>	<u>Total Paid</u>
Health:	\$295,970.95	\$ 73,952.00	\$369,922.95
Dental:	19,337.09	4,833.34	24,170.43
Life:	<u>8,668.08</u>	<u>0</u>	<u>8,668.08</u>
	<b>\$323,976.12</b>	<b>\$ 78,785.34</b>	<b>\$402,761.46</b>

**CAPITAL PROJECTS**

**Projects w/o  
Temp Notes**

Project	Fund	Resolution of Advisability	Total Resolution Amount	Expenditures thru 12/31/15	Expenditures 1/1/16 thru 11/30/16	Total Expenditures	Resolution Authorization Less Expenditures	
Eagles Nest Phase 2A Water	05	556-14	\$ 104,000.00	\$ 100,801.81	\$ 2,505.38	\$ 103,307.19	\$ 692.81	Included in 2016A GO Bonds
Eagles Nest Phase 2A Paving	05	555-14	\$ 515,000.00	\$ 440,221.49	\$ 5,839.20	\$ 446,060.69	\$ 68,939.31	Included in 2016A GO Bonds
Eagles Nest Phase 2 Sanitary Sewer	05	547-14	\$ 240,000.00	\$ 168,429.73	\$ 3,616.65	\$ 172,046.38	\$ 67,953.62	Included in 2016A GO Bonds
Maize Ind Park Water	05	565-14	\$ 63,700.00	\$ 61,484.69	\$ 2,100.60	\$ 63,585.29	\$ 114.71	Included in 2016A GO Bonds
Maize Ind Park Sanitary Sewer	05	566-14	\$ 97,600.00	\$ 66,099.75	\$ 2,476.05	\$ 68,575.80	\$ 29,024.20	Included in 2016A GO Bonds
Eagles Nest Phase 2B Water	05	585-16	\$ 123,000.00	\$ -	\$ 7,946.59	\$ 7,946.59	\$ 115,053.41	
Eagles Nest Phase 2B Paving	05	586-16	\$ 422,000.00	\$ -	\$ 24,757.63	\$ 24,757.63	\$ 397,242.37	
<b>Totals</b>			<b>\$ 1,565,300.00</b>	<b>\$ 837,037.47</b>	<b>\$ 49,242.10</b>	<b>\$ 886,279.57</b>	<b>\$ 679,020.43</b>	

MPBC Project	Fund	Resolution	Total Resolution Amount	Expenditures thru 12/31/15	Expenditures 1/1/16 thru 11/30/16	Total Expenditures	Resolution Authorization Less Expenditures
Public Works Building	05	MPBC 14-15	\$ 1,056,893.00	\$ 404,930.41	\$ 647,292.59	\$ 1,052,223.00	\$ 4,670.00
<b>Grand Total</b>				<b>\$1,241,967.88</b>	<b>\$696,534.69</b>	<b>\$1,938,502.57</b>	<b>\$683,690.43</b>

**CIP 2016 (As of 11/30/2016)**

<u>Detail</u>	<u>Reason</u>	<u>November Revenue</u>	<u>November Expense</u>	<u>Budget</u>	<u>Year to Date Actual Cash</u>
Beg Cash - 01/01/16					\$ 352,451.28
Ad Valorem	Tax			-	-
Motor Vehicle	Tax			-	-
Delinquent	Tax	-		100.00	-
Interest	From Bank Accounts	283.57		1,500.00	2,702.37
Maize Rec	Splash Park Contribution	-			-
Transfers	From General Fund	40,666.67		488,000.00	447,333.37
Total Revenues		<u>40,950.24</u>		<u>489,600.00</u>	<u>450,035.74</u>
<b>Total Resources</b>					<b><u><u>802,487.02</u></u></b>
Street Improvements			29,983.72	375,000.00	385,967.23 **
Sidewalk/Bike Paths			9,529.11	75,000.00	9,529.11
Park Improvements			1,096.23	215,000.00	232,318.41
Other Capital Costs	Material Bins @ Public Works		31,865.00	-	59,990.20
Total Expenditures		-	<u>72,474.06</u>	<u>665,000.00</u>	<u>687,804.95</u>
Cash Balance - 11/30/16					<b><u><u>\$ 114,682.07</u></u></b>

\*\*\$122,743.40 Encumbered in 2015 Budget



CITY OF MAIZE/REC COMMISSION  
 SHARED COSTS FOR CITY HALL COMPLEX  
 THRU 11/30/2016

	MONTHLY BILL	CITY PORTION	REC PORTION	YEAR TO DATE COSTS	CITY PORTION YEAR TO DATE	REC PORTION YEAR TO DATE	PERCENT OR FLAT RATE
Phone	\$515.19	\$379.22	\$135.97	\$5,666.37	\$4,170.70	\$1,495.67	Flat - based on number of lines
Internet	1,057.67	951.90	105.77	11,634.37	10,470.90	1,163.47	Flat - \$105.77/month
Gas	103.47	57.01	46.46	2,965.37	1,633.92	1,331.45	44.90%
Electric	2,408.94	1,327.33	1,081.61	24,220.35	13,345.41	10,874.94	44.90%
Janitor	1,856.37	1,022.86	833.51	28,596.24	15,756.53	12,839.71	44.90%
Water/Sewer	0.00	0.00	0.00	0.00	0.00	0.00	
Trash	72.60	40.00	32.60	798.60	440.03	358.57	44.90%
Insurance (Annual Bill)	0.00	0.00	0.00	10,031.60	5,527.41	4,504.19	44.90%
Pest Control	275.00	255.00	20.00	3,025.00	2,805.00	220.00	Flat - Exterminator breaks rate out
Lawn Service	0.00	0.00	0.00		0.00	0.00	Provided by Public Works
<b>Total</b>	<b>\$6,289.24</b>	<b>\$4,033.32</b>	<b>\$2,255.92</b>	<b>\$86,937.90</b>	<b>\$54,149.90</b>	<b>\$32,788.00</b>	

Shared Costs for City Hall  
 Updated 12/14/2016

**Equipment Reserve 2016 (As of 11/30/2016)**

<u>Detail</u>	<u>Reason</u>	<u>November Revenue</u>	<u>November Expense</u>	<u>Budget</u>	<u>Year to Date Actual Cash</u>
Beg Cash - 01/01/16					\$ 114,563.11
Interest	From Bank Accounts	24.75		300.00	229.08
Other Revenues	Sale of PD Radios	-			-
Reimbursements	Sale of Fireworks Equipment/PD Van	-		-	3,300.00
Transfers	From General Fund	19,166.67		230,000.00	210,833.37
<b>Total Revenues</b>		<b>\$ 19,191.42</b>		<b>\$ 230,300.00</b>	<b>\$ 214,362.45</b>
<b>Total Resources</b>					<b>\$ 328,925.56</b>
Trucks/Heavy Equipment				\$ 100,000.00	\$ 110,661.55
Computers				- 50,000.00	3,654.00
Computers	Phone Upgrades-2015 Encumbrance			-	23,010.00
Police Department Expenses				- 80,000.00	68,000.43
<b>Total Expenditures</b>				<b>\$ - \$ 230,000.00</b>	<b>\$ 205,325.98</b>
Cash Balance - 11/30/2016					<b>\$ 123,599.58</b>

CITY OF MAIZE/USD #266  
 SHARED COSTS FOR SCHOOL RESOURCE OFFICERS  
 THRU 11/30/2016

	MONTHLY BILL	CITY PORTION	USD #266 PORTION	YEAR TO DATE COSTS	CITY PORTION YEAR TO DATE	USD #266 PORTION YEAR TO DATE
Wages	\$ 8,810.72	\$ 2,202.68	\$ 6,608.04	\$ 61,922.35	\$ 15,480.59	\$ 46,441.76
FICA/Medicare Taxes	629.23	157.31	471.92	4,551.98	1,138.00	3,413.99
KPERS (Employer)	808.83	202.21	606.62	5,864.01	1,466.00	4,398.01
Health/Life/Other Employer Paid Benefits	1,980.76	495.19	1,485.57	8,970.54	2,242.64	6,727.91
<b>Totals</b>	<b>\$ 12,229.54</b>	<b>\$ 3,057.39</b>	<b>\$ 9,172.16</b>	<b>\$ 81,308.88</b>	<b>\$ 20,327.22</b>	<b>\$ 60,981.66</b>



## CITY OPERATIONS REPORT

**DATE:** December 14, 2016

**TO:** Maize City Council

**FROM:** Richard LaMunyon-Becky Bouska-Sue Villarreal-Jolene Graham

**RE:** September Report

### 1) Year End

As we close out 2016 it has been another enormously successful year for our City. The individuals that make up our employee teams are at the top of their class in their chosen areas and careers. The positive results in all areas have been exceptional. It's a privilege to be a part of it.

As staff we again thank you, our Governing Body, for your commitment and dedication to a better community for all. It is a pleasure to work with you.

### 2) Cox Demand Letter

The City has been notified that the \$12,796.00 "demand for payment" will be received.

In paying the claim the insurance company stated, in part:

*“ . . .the settlement is the compromise of a doubtful and disputed claim . . . and that said release deny liability . . .to avoid litigation . . .”*

Those homeowners that filed a claim with the City have been informed of this development and the insurance company information was provided.

### 3) Industrial Park Development

Staff is working with the Industrial Park developer to secure additional manufacturing plants in the park. In discussion are plans and funding for additional roadways, a storm water system and expanding utilities development for the area.

The additional water demands will require a looping component and the expanded sewer service will require an upgrade of the existing system. Staff is working with Ruggles & Bohm Company who will provide an agreement for services for council consideration.

**4) City Pond Improvements**

This Pond project was approved for 2015 and then delayed by weather and the Watercress Villas apartment project. The Watercress apartments complex has completed the storm water drainage system into the city pond and as a result we can proceed with the fixes originally planned during 2015.. Staff is meeting with Graber Backhoe, Inc to repair the pond. (*They provided the bid for service in March 2015*) It is anticipated an updated agreement will be brought to the Council in the near future.

**5) Holidays**

- City Hall & Public Works closed December 23<sup>rd</sup> & 26<sup>th</sup>
- City Hall & Public Works closed January 2<sup>nd</sup>

**6) Economic Development**

- Thirty-six new housing starts & three tri-plexus
- Copper Creek Apartments
  - Emergency/Construction entrance has been approved by KDOT
- Watercress Apartments
  - On schedule
- Industrial Park Expansion
  - Expansion under discussion

**7) City Meetings**

- December 19<sup>th</sup> - Council @ 7pm
- January 12<sup>th</sup> - Planning @ 7pm
- January 10<sup>th</sup> - Park & Tree @ 5:30pm
- January 16<sup>th</sup> - Council @ 7pm