

CITY OF PALMER ACTION MEMORANDUM No. 10-003

SUBJECT: Authorize the City Manager to Execute Change Order One for the Wastewater Treatment Plant Lagoon Cover to Lemna Technologies, Inc. in the Amount of \$597,000

AGENDA OF: January 12, 2010

Council action: Authorized

Approved for presentation by B. B. Allen, City Manager *B. B. Allen*

Route To:	Department/Individual:	Initials/Date:	Remarks:
X	Originator – Public Works	<i>CKL</i>	
X	City Clerk	<i>JBY</i> 12/31/09	
X	City Attorney	<i>[Signature]</i> 12/31/09	
X	Director of Administration	<i>[Signature]</i>	
	Director of Community Development		
	Director of Community Services		
	Director of Public Safety		
	Director of Public Works		

Attachment(s): Preliminary Flow Charts .5 MGD and 1.0 MGD and Change Order 1

Certification of Funds:

	No fiscal impact.	
X	Funds are budgeted from this account number: ARRA WWTP	24-01-21-6620
	Funds are not budgeted. Budget modification is required. Affected account number:	

Director of Administration Signature: *[Signature]*

Summary statement: Change Order One will purchase an insulated floating cover for lagoon two at the Palmer Wastewater Treatment Plant in the amount of \$597,000.

Lemna Technologies, Inc. will provide materials, the freight to Palmer’s Wastewater Treatment Plant and supply the technical installation labor to assist Palmer’s work force to complete the installation. Once the material arrives in Palmer, it is anticipated the installation will take approximately two weeks after the installation of the insulated cover on Lagoon #1, with an additional week of modifications before the project is done. Once the installation is completed, the manufacturer will provide the City with a five year warranty of the materials and provide a

certificate of proper installation.

On December 8, 2009, the city awarded the contract to Lemna Technologies, Inc. for the insulated floating cover for lagoon one at the wastewater treatment plant. The bid included freight and technical services for the installation of the cover. At that time the City reported the preliminary estimate cost for the entire project were as follows:

Cost	Description	Funded
\$ 171,250.00	Environmental Assessment WWTP	(previously funded by Council)
\$ 662,000.00	Cover Material	
\$ 250,000.00	Installation Costs	
\$ 400,000.00	Blower Modifications	
\$ 600,000.00	Filtration Improvements	
\$ 260,406.25	Admin fees	
\$ 156,343.75	Contingency	
<u>\$ 2,500,000.00</u>	Total - American Recovery and Reinvestment Act (ARRA) Funds	

After discussions with Alaska Department of Environmental Conservation (ADEC), Ecological Engineering Group, Inc. and Lemna Technologies, Inc. it seems that due to the funding constraints it is in the City's best interest to cover both lagoon one and two at this time. The constraint requires that all ARRA funds be assigned and properly identified how they will be spent by January 17, 2010. It is not certain the other modifications to the blowers and filtration would even be needed to be done at this point in time. The second insulated cover is easy to justify because it will allow us the future capacity with it in place up to about 2 MGD (Million Gallons per Day). This would be the maximum capacity of the existing facility head works building.

Lemna Technologies suggested covering both lagoons earlier as a solution to handle up to two million gallons with current influent temperatures. After the project bid, a proposal for the second cover was requested. The consensus of the project team is that purchasing the second cover is more beneficial than guessing at other modifications that may or may not need to be made to the first cover.

ADEC has agreed that if blower modification and filtration improvements are needed in the future, they could be funded thru the ADEC Municipal Matching Grants. The City must show ADEC how all the ACWF 671161 money will be spent by January 17, 2009. With the approval of changer order #1, the adjusted breakdown below would do that.

After approving Change Order One to Lemna Technologies, Inc. the preliminary estimate project cost has been revised as follows:

Cost	Description	
\$ 171,250.00	Environmental Assessment WWTP	(previously funded by Council)
\$ 662,000.00	Cover Material	(previously funded by Council)
\$ 597,000.00	Cover Material, Change Order 1	
\$ 500,000.00	Installation Costs	
\$ 280,212.50	Admin fees	
\$ 289,537.50	Contingency	
<u>\$ 2,500,000.00</u>	Total - ARRA Funds	

This project is funded by the Alaska Department of Environmental Conservation (ADEC) Alaska Clean Water Fund (ACWF) no. 671161 for Wastewater Treatment Plant Improvements, Phase I and is 100 percent funded.

Administration recommendation: Approve action memorandum 10-003.

CHANGE ORDER

OWNER (X)
CONTRACTOR (X)

**PROJECT: Palmer WWTP Improvements Phase I,
Insulated Floating Cover
City of Palmer, AK**

**CHANGE ORDER NUMBER: 001
INITIATION DATE: 12/29/2009
PROJECT NO: 915-LC**

**TO: Lemna Technologies, Inc.
2445 Park Avenue,
Minneapolis, MN 55404**

**CONTRACT DATE: 12/24/2009
NOTICE TO PROCEED: 12/29/2009**

You are directed to make the following changes to this Contract:

1. ADD the following quantities to the Bid Schedule Time and Materials:

Item	Work Description	Qty	Unit Price	Total Price
CO1-1	Add Floating Insulated R14 Cover 123,750 SF for Pond no. 2 at WWTP	123,750 SF	\$ 4.375	\$ 541,406.25
CO1-2	Increase Line Item 2 - Floating Baffle System for Pond no. 2 at WWTP	1 LS	\$ 31,843.75	\$ 31,843.75
CO1-3	Increase Line Item 3 - Site Supervision for the Installation of the Floating Cover at Pond no. 2 at WWTP	19 Days	\$ 1,250.00	\$ 23,750.00
		TOTAL		\$ 597,000.00

Note: All work shall be in accordance with the Contact Documents and must be approved by the City Representative and the City of Palmer.

Not valid until signed by the Owner. Signature of the Contractor indicates his agreement herewith, including any adjustments in the Supplier Sum or Contract Time all other conditions of the main Contract remain in force.

The original Contract Sum was	\$ 662,000.00
Net change by previously authorized Change Orders	\$ -
The Contract Sum prior to this Change Order was	\$ 662,000.00
The Contract Sum will be (Increased) by this Change Order	\$ 597,000.00
The new Contract Sum including this Change Order will be Not To Exceed	\$ 1,259,000.00
The Contract Time will be (Remain Unchanged)	0

Substantial Completion and Final Completion, as of the date of this Change Order, therefore is 08/25/09 and 09/25/09, respectively.

BY ACCEPTING THIS CHANGE ORDER, THE CONTRACTOR AGREES THAT THE AMOUNT PAID FOR ON THE ABOVE ITEMS IS EQUITABLE AND THAT NO FURTHER COMPENSATION FOR THE ABOVE ITEMS WILL BE MADE.

Accepted:

Lemna Technologies, Inc.

SUPPLIER
2445 Park Avenue

Minneapolis, MN 55404

Authorized:

City of Palmer

OWNER
231 W. Evergreen Ave.

Palmer, AK 99645

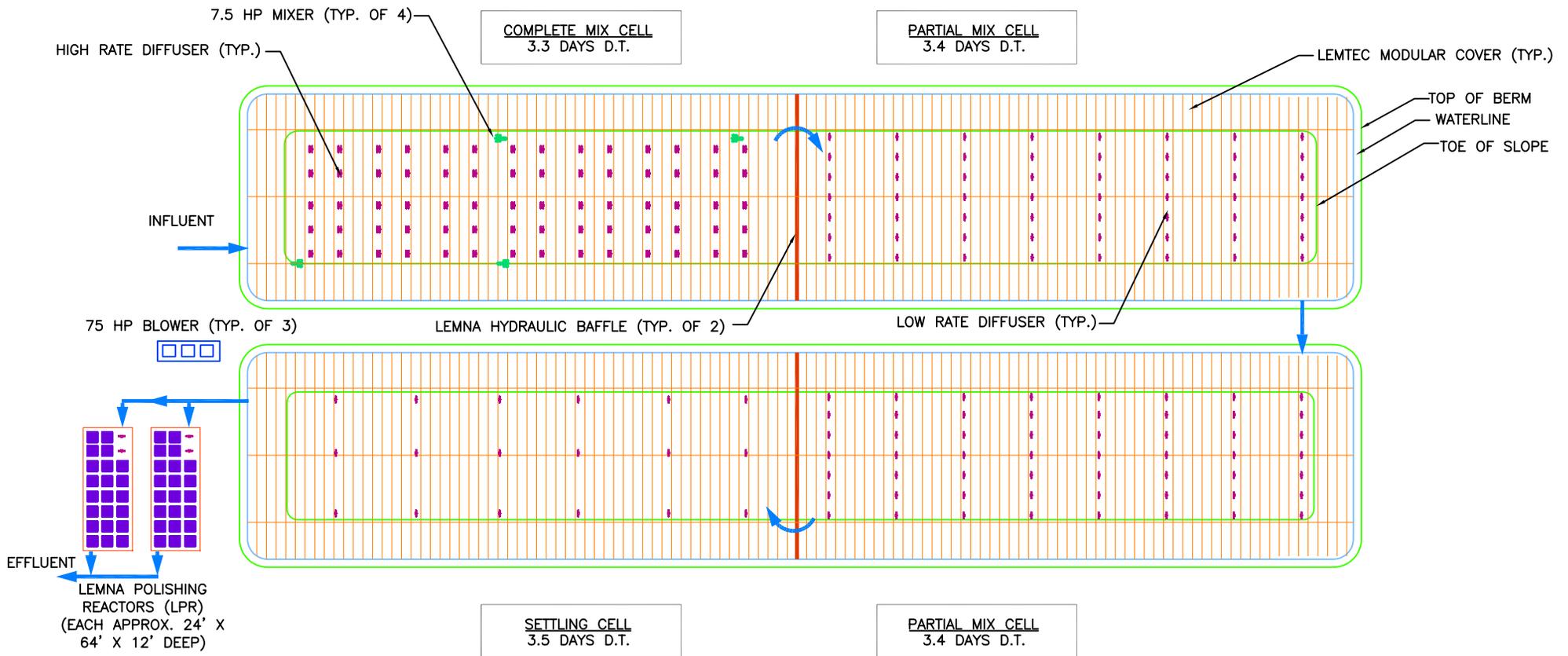
By: _____

By: _____

Date: _____

Date: _____

LEMTEC AERATION POND
 2.81 ACRE
 9.2' WATER DEPTH
 6.7 DAYS D.T.



75 HP BLOWER (TYP. OF 3)

EFFLUENT
 LEMNA POLISHING REACTORS (LPR)
 (EACH APPROX. 24' X 64' X 12' DEEP)

SETTLING CELL
 3.5 DAYS D.T.

PARTIAL MIX CELL
 3.4 DAYS D.T.

LEMTEC AERATION/SETTLING POND
 2.80 ACRE
 9.8' WATER DEPTH
 6.9 DAYS D.T.

INFLUENT CHARACTERISTICS:
 BOD=220 mg/l
 TSS=220 mg/l
 NH₃=30 mg/l

EFFLUENT LIMITS:
 BOD=30 mg/l
 TSS=30 mg/l
 NH₃=1.7 mg/l (summer)
 NH₃=8.7 mg/l (winter)

DESIGN FLOW: 1.0 MGD

NOTE: DESIGN BASED ON MINIMUM INFLUENT TEMPERATURE OF 9.17°C

THIS DESIGN IS PROPRIETARY TO LEMNA TECHNOLOGIES, INC. AND IS SOLELY INTENDED FOR APPLICATION AT PALMER, ALASKA BY LEMNA TECHNOLOGIES, INC. THIS DESIGN CANNOT BE USED BY A THIRD PARTY NOR REPRODUCED, IN FULL OR IN PART, WITHOUT THE WRITTEN AUTHORIZATION OF LEMNA TECHNOLOGIES, INC.

DESIGNED BY:	MS/DAP
APPROVED BY:	NMH / JAM
SCALE:	NOT TO SCALE
DATE:	AUGUST 6, 2009
SHEET NO.:	1 OF 1

LEMTEC™ BIOLOGICAL TREATMENT PROCESS PALMER, ALASKA

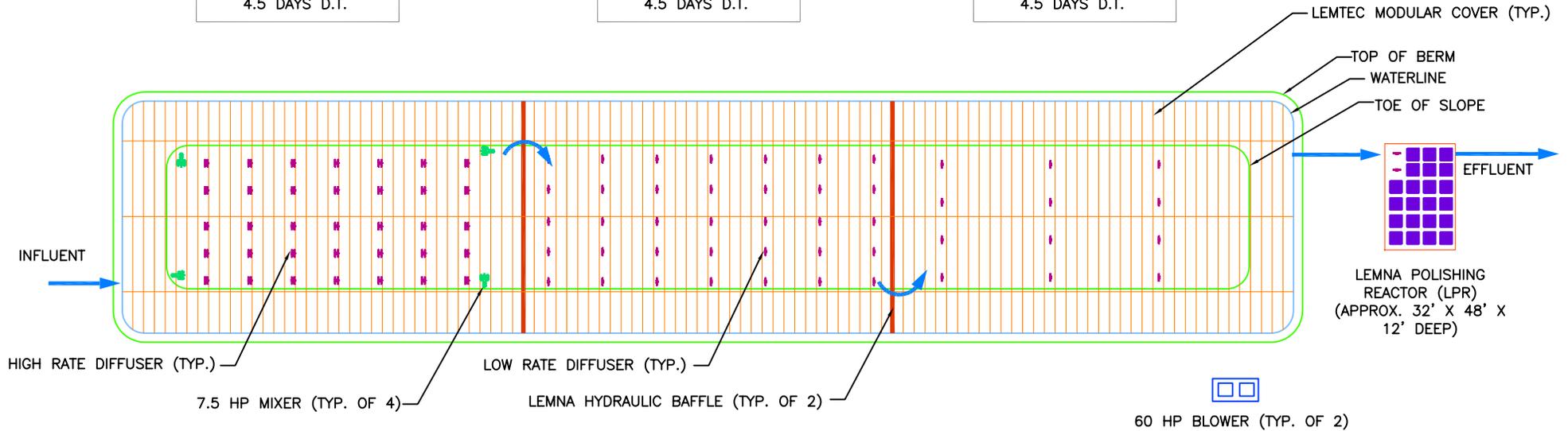
LEMNA TECHNOLOGIES
 2445 PARK AVENUE SOUTH
 MINNEAPOLIS, MINNESOTA 55404
 TEL: (612) 253-2002
 FAX: (612) 253-2003

LEMTEC AERATION POND
 2.71 ACRE
 9.8' WATER DEPTH
 13.5 DAYS D.T.

COMPLETE MIX CELL
 4.5 DAYS D.T.

PARTIAL MIX CELL
 4.5 DAYS D.T.

SETTLING CELL
 4.5 DAYS D.T.



LEMNA POLISHING REACTOR (LPR)
 (APPROX. 32' X 48' X 12' DEEP)

INFLUENT CHARACTERISTICS:
 BOD=220 mg/l
 TSS=220 mg/l
 NH₃=30 mg/l

EFFLUENT LIMITS:
 BOD=30 mg/l
 TSS=30 mg/l
 NH₃=1.7 mg/l (summer)
 NH₃=8.7 mg/l (winter)

DESIGN FLOW: 0.5 MGD

NOTE: DESIGN BASED ON MINIMUM INFLUENT TEMPERATURE OF 8°C

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DRAWN BY: MS/DAP
 APPROVED BY: NMH / JAM
 SCALE: NOT TO SCALE
 DATE: AUGUST 6, 2008
 SHEET NO: 1 OF 1

LEMTEC™ BIOLOGICAL TREATMENT PROCESS
PALMER, ALASKA

LEMNA TECHNOLOGIES
 2445 PARK AVENUE SOUTH
 MINNEAPOLIS, MINNESOTA 55404
 TEL: (612) 253-2002
 FAX: (612) 253-2003