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IFB139043 Fire Pump Replacement at University Tower

ADDENDUM NO. 1

February 2, 2017

This Addendum consists of six (6) pages: this acknowledgement and five (5) pages of information.

Acknowledgement:

I have received this Addendum # 1 and have used it in the calculation/preparation of this proposal.

_____ Firm

**This acknowledgement must be submitted with your
proposal or it may be rendered invalid.**



**Rochester Housing Authority
University Tower Fire Pump Replacement
HUNT 2285-051**

The following Addendum (Addenda) shall be considered a part of the contract documents prepared by HUNT ENGINEERS, ARCHITECTS & LAND SURVEYORS, P.C. dated January 23, 2017.

Architectural ADDENDUM No. 1

Date: February 1, 2017

Documents Issued by this Addendum:

- Recent fire pump test on existing system.

Clarifications issued by this Addendum:

- Contractor will be responsible for all coordination with RG&E if electrical shutdown is required. All feasible RG&E fees will be paid for by Rochester Housing Authority.
- Harold Zink Contact information for building access (585) 370-7074
- Contractor will provide new electrical connection between fire pump and fire alarm panel located in first floor lobby. Wire to be ran in 1/2" conduit for protection.
- Refer to Figure 3 in Attachment A: Existing 6" check valve will remain.

End of Addendum



ANNUAL FIRE PUMP INSPECTION AND TEST REPORT

SERVICE ORDER #: 2016176 DATE: 8/19/16

CUSTOMER: Rochester Housing Authority CONTACT: Mark Polfleit

ADDRESS: University Tower
625 University Ave.
Rochester, NY 14607 PHONE: (585) 232-5555
FAX: (585) 232-7827

CONTRACT P/O #: F60809012-1-JCW E-MAIL: mapolfleit@ryanservice.com

PUMP	Aurora	3-481-10	71-80510
DRIVER	Louis Allis	COG4B 25HP/256T/200V	219195-2
CONTROL	Clark	10663	258389-1-1
GEAR DRIVE	NA	NA	NA

JOCKEY PUMP	Aurora	I4-BF	C71-10282
DRIVER	Marathon	9K145TTDR7926ABW	915617
CONTROL	Clark	10661	258389-2-1

START/ STOP PRESSURE SETTINGS:

RUN PERIOD TIMER :

FIRE PUMP : ON @ 89 PSI OFF @ 95 PSI ENABLED @ 10 MINUTES

JOCKEY PUMP : ON @ 103 PSI OFF @ 118 PSI NA

SYSTEM : Sprinkler LOCATION: Pump Room

PUMP DESIGN: 500 GPM @ 136.2 TDH 59 PSI 3520 RPM 23 BHP

69.8 PSI @ CHURN 44.6 PSI @ 150 % 25.7 MAX BHP UL LISTED F M APPROVED

SUPPLY PRESSURE : 52.6 PSI SOURCE : Municipal DRIVER TYPE: Electric

COMMENTS :

- B 1.0 - Pump packing leaking excessively - recommend rebuilding rotating assembly.
 - B 2.0 - Vibration from pump.
 - B 3.0 - Pump casing relief valve not operating consistently - pump casing and packing at risk for overheating.
 - B 6.0 - Auto air release valve leaking.
 - B 7.3 - Pump suction control valve located in adjacent trash room - valve location should be tagged on pump suction line.
 - C 2.0 - Power available pilot lamp out on main controller. Run period timer wiring disconnected and capped off (disabled).
- Max temp 149 deg. F @Pump thrust bearing (normal) - Amb. Temp - 84 deg. F.

COMPLETED BY: Chuck Hamel DATE : 8/19/16 PAGE 1



FIRE PUMP INSPECTION AND MAINTENANCE REPORT

COMPLETED TASK CHECKLIST

ALL "NO" ENTRIES FULLY EXPLAINED UNDER COMMENTS

YES NO N/A DESCRIPTION

A. PUMP ROOM INSPECTION :

- | | | | |
|-------------------------------------|--------------------------|-------------------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1.0 PUMP ROOM SECURED |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2.0 PUMP ROOM TEMPERATURE ABOVE 40 F / 70 F DIESEL WITHOUT HEATER |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 3.0 VENT LOUVERS OPERATE PROPERLY |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 3.1 VENT LOUVERS INTAKE CLEAN |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 4.0 ADEQUATE LIGHTING |

B. PUMP / PIPING SYSTEM INSPECTION :

- | | | | |
|-------------------------------------|-------------------------------------|-------------------------------------|--|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1.0 SHAFT SEALS DRIPPING WATER AT PROPER RATE (30-60 DROPS/MIN.) |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 2.0 SYSTEM FREE OF VIBRATION AND UNUSUAL NOISE |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3.0 PACKING, BEARINGS AND PUMP CASING FREE OF OVERHEATING |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4.0 CASING RELIEF VALVE OPERATIONAL |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 4.1 SYSTEM PRESSURE RELIEF VALVE PROPERLY ADJUSTED : |

SET @ PSI

- | | | | |
|-------------------------------------|-------------------------------------|--------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5.0 PUMP OPERATIONAL WITHOUT ABNORMALITIES |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 6.0 VALVES, FITTINGS AND PIPING LEAK TIGHT |

7.0 SYSTEM VALVE CONDITION:

- | | | | |
|-------------------------------------|-------------------------------------|-------------------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 7.1 CONTROL VALVES SEALED IN CORRECT POSITION |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 7.2 BYPASS OPEN |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 7.3 VALVES ACCESSIBLE |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 7.4 VALVES IDENTIFIED |

- | | | | |
|--------------------------|--------------------------|-------------------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 8.0 LUBRICATION OF SHAFT COUPLING PERFORMED |
|--------------------------|--------------------------|-------------------------------------|---|

LUBRICANT ID :

- | | | | |
|-------------------------------------|--------------------------|--------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 9.0 LUBRICATION OF PUMP BEARINGS PERFORMED |
|-------------------------------------|--------------------------|--------------------------|--|

LUBRICANT ID Lithium EP2

- | | | | |
|-------------------------------------|--------------------------|--------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 10.0 LUBRICATION OF ELECTRIC MOTOR BEARINGS PERFORMED |
|-------------------------------------|--------------------------|--------------------------|---|

LUBRICANT ID Exxon Polyrex EM

- | | | | |
|--------------------------|--------------------------|-------------------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 11.0 LUBRICATION OF RIGHT ANGLE GEAR PERFORMED |
|--------------------------|--------------------------|-------------------------------------|--|

LUBRICANT ID

S/O : 2016176

DATE : 8/19/16

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FIRE PUMP INSPECTION AND MAINTENANCE REPORT

COMPLETED TASK CHECKLIST

ALL "NO" ENTRIES FULLY EXPLAINED UNDER COMMENTS

YES	NO	N/A	DESCRIPTION
			C. GENERAL CONTROLLER INSPECTION :
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1.0 EMERGENCY SOURCE ISOLATION SWITCH CLOSED
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2.0 NORMAL PHASE ROTATION OR POWER AVAILABLE PILOT LIGHT ON
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3.0 ALARM INDICATING PILOT LIGHTS OFF
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.0 AUTOMATIC START FUNCTION :
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.1 PRESSURE DROP
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4.2 FLOW SWITCH
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4.3 DELUGE / PREACTION
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.4 AUTOMATIC STOP FUNCTION
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.0 MANUAL START FUNCTION
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.1 MANUAL STOP FUNCTION
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	6.0 REMOTE START FUNCTION
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	6.1 REMOTE STOP FUNCTION
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7.0 EMERGENCY MECHANICAL START
			D. DIESEL ENGINE SYSTEM INSPECTION :
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1.0 BATTERIES FULLY CHARGED
			BATTERY # 1 : VOLTS BATTERY # 2 : VOLTS
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1.1 OIL LEVEL AND PRESSURE NORMAL PSI
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1.2 COOLANT LEVEL AND TEMPERATURE NORMAL Deg. F
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1.3 COOLING WATER FLOW AND PRESSURE NORMAL PSI
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1.4 ELECTROLYTE LEVEL IN BATTERIES NORMAL
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2.0 FUEL LEVEL 2.1 FUEL PRESSURE PSI
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3.0 BATTERY PILOT LIGHTS ON AND FAILURE ALARM LIGHTS OFF
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4.0 ENGINE FREE OF FLUID LEAKS
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5.0 ENGINE RUN TIME METER WORKING HRS:
			E. JOCKEY PUMP
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1.0 PILOT LIGHTS OPERATIONAL
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.0 AUTOMATIC START FUNCTION
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.1 AUTOMATIC STOP FUNCTION
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.0 MANUAL START FUNCTION
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.1 MANUAL STOP FUNCTION
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.0 PUMP OPERATIONAL WITHOUT ABNORMALITIES
S/O :	2016176	DATE :	8/19/16 PAGE 3



FIRE PUMP PERFORMANCE DATA

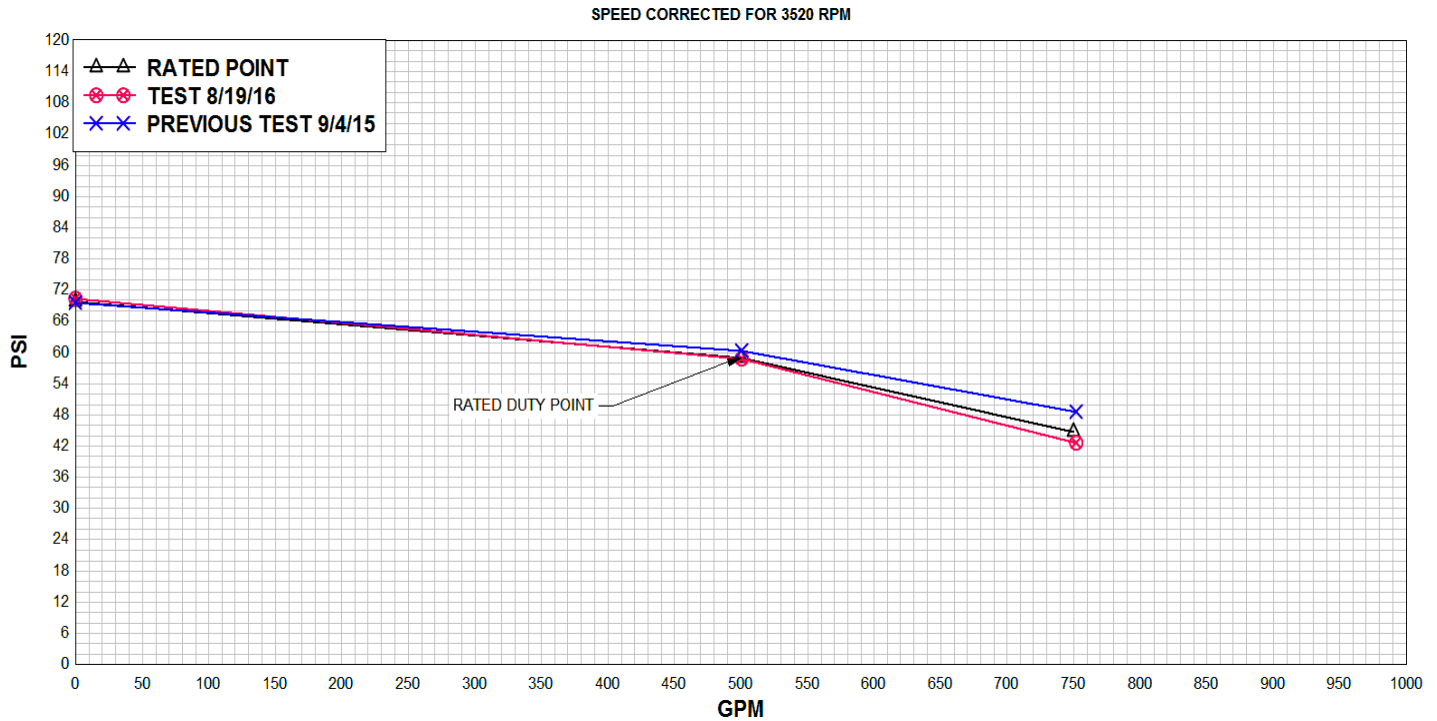
SYSTEM: Sprinkler LOCATION: Pump Room

PUMP DESIGN: 500 GPM @ 136.2 TDH 59 PSI 3520 RPM 23 BHP

69.8 PSI @ CHURN 44.6 PSI @ 150 % 25.7 MAX BHP UL LISTED F M APPROVED

SUPPLY PRESSURE : 52.6 PSI SOURCE : Municipal DRIVER TYPE: Electric

TEST METHOD : Hose Stream NOZZLE SIZE : 1-3/4"



GPM	0	501	752
# OF NOZZLES	0	1	2
PITOT PSI	0	32	18
SUCTION PSI	52.2	48.2	43.8
DISCHARGE PSI	122.5	106.9	86.3
NET PSI	70.3	58.7	42.5
NET TDH	162.3	135.5	98.1
RPM	3562.4	3514.4	3493.1
VOLTS (AB-BC-AC)	209	208	208
AMPS (L1,L2,L3)	34.5	65.3	73.8
	CHURN	50%	100%

