



**DATE:** October 3, 2018

**PROJECT:** City of Sanborn, Iowa  
Wastewater Treatment Facility Improvements

**LETTING:** October 4, 2018 @ 3:00 P.M.  
Sanborn, Iowa

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#### **ADDENDUM NO. 4**

This ADDENDUM NO. 4 hereby revises the Contract Documents dated August 16, 2018. Revisions made herein shall become a binding part of the Contract Documents.

#### **TECHNICAL SPECIFICATIONS**

##### **SECTION 11920 – SPIRAL SCREEN**

- 1) Page 11-41: Replace Paragraph 2.03.D.2 as follows:
  2. The spiral screw shall be shaftless except in the compaction and discharge areas. The screw shall be constructed of stainless steel sections formed continuously into a spiral, consisting of inner and outer flights. The screw flight shall be of sufficient height to aid in the prevention of roll back in the basket area.

##### **SECTION 26700 – LIGHTING**

- 2) Page 26-36: Replace Paragraph 3.01.C as follows:
  - C. Four (4) MBBR area lights shall be mounted on two poles as shown in drawings and aimed to fully illuminate the MBBR structure.

#### **DRAWINGS**

- 3) Sheet C17

Clarification:

- The work associated with the Recirculation Lift Station and the associated valve vault are requirements of this project. The line work and line type are not intended to indicate any existing structure, piping, electrical, etc.

4) Sheet C18, C19 and C20:

Clarification:

- The design intent for the splitter structures is precast reinforced concrete box sections. Cast-in-place concrete is an acceptable alternative as long as the design is certified by an Engineer licensed in the State of Iowa.
- Section views are shown for clarity. Each structure requires three (3) stop plate frames and three (3) adjustable weir plate assemblies.
  - MBBR Inlet Splitter Structure requires two (2) stop plates
  - MBBR Outlet Splitter Structure requires three (3) stop plates

5) Sheet P705\_ADD#1:

Replace Sheet P705\_ADD#1 with revised Sheet P705\_ADD#4. The Drawing has been revised as follows:

- Booster Pump BP-1 and BP-2 schedule modification.

6) Sheet E14\_ADD#2:

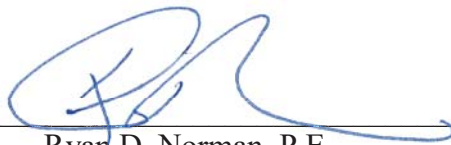
Replace Sheet E14\_ADD#2 with revised Sheet E14\_ADD#4. The Drawing has been revised as follows:

- Blower disconnect modification

This ADDENDUM NO. 4 shall become a legal and binding part of the Contract Documents. All BIDDERS shall acknowledge receipt of this ADDENDUM NO. 4 on the BID FORM and agree to accept the revisions indicated and prepare proposals in accordance therewith.

DGR Engineering

By



Ryan D. Norman, P.E.  
Iowa License No. 20897

Plot Date: 10/3/2018 11:42 AM

**Pump and Motor Schedule**

**Note: Changes in red and/or revision cloud shall be modified as part of Addendum #4**

ID	Location	Type	Primary Design Condition		Motor Data				Electrical	Seal	Approved Manufacturer	Additional Notes	
			Flow Rate, gpm	Head, ft.	Type	Speed, rpm	HP	Starter Type					
GP-1	Grit Pump	Pretreatment Room	Submersible	75.0	16.5	Submersible, Explosion Proof	1,800	5.0	VFD	460/60/3	Flushless Mechanical	WEMCO	
BP-1	Booster Pump	Pretreatment Room	Vertical Multi-Stage	100.0	60.0	TEFC, Prem. Efficiency, Explosion Proof	1,800	3.0	VFD	460/60/3	Flushless Mechanical	Goulds 22SV-01	
BP-2	Booster Pump	Pretreatment Room	Vertical Multi-Stage	100.0	60.0	TEFC, Prem. Efficiency, Explosion Proof	1,800	3.0	VFD	460/60/3	Flushless Mechanical	Goulds 22SV-01	
SP-1	Sludge Pump	Operations Building	Progressive Cavity	60.0	34.0	TEFC	336	5.0	FVNR	460/60/3	Flushless Mechanical	Netzsch NEMO	
SP-2	Sludge Pump	Operations Building	Progressive Cavity	60.0	34.0	-	336	5.0	FVNR	460/60/3	Flushless Mechanical	N/A	Future - No Bid
RCP-1	Recycle Pump	MBBR - 1	Submersible	666.0	3.0	-	1,800	2.0	VFD	460/60/3	Flushless Mechanical	N/A	Future - No Bid
RCP-2	Recycle Pump	MBBR - 2	Submersible	666.0	3.0	-	1,800	2.0	VFD	460/60/3	Flushless Mechanical	N/A	Future - No Bid
RP-1	Recirculation Pump	Recirculation Lift Station	Submersible Non-Clog	200.0	34.0	Submersible, Premium Efficiency, Explosion Proof	1,800	5.0	FVNR	460/60/3	Flushless Mechanical	Flygt	

**Blower Schedule**

ID	Location	Type	Discharge Rate, scfm	Discharge Pressure, psig	Motor Data				Electrical	Blower Speed, rpm	Additional Notes
					Type	Speed, rpm	HP	Starter Type			
B-1	MBBR Blower	Electrical/Blower Room	PD Rotary Lobe	Per Equipment Manufacturer*	TEFC, Prem. Efficiency	3,990	*	VFD	460/60/3	3,985	
B-2	MBBR Blower	Electrical/Blower Room	PD Rotary Lobe		TEFC, Prem. Efficiency	3,990		VFD	460/60/3	3,985	
B-3	MBBR Blower	Electrical/Blower Room	PD Rotary Lobe		TEFC, Prem. Efficiency	3,990		VFD	460/60/3	3,985	
B-4	MBBR Blower	Electrical/Blower Room	PD Rotary Lobe		TEFC, Prem. Efficiency	3,990		VFD	460/60/3	3,985	Future - No Bid

**Submersible Mixer Schedule**

ID	Location	Type	Motor Data	Electrical	Additional Notes	
						Type
SM-1	MBBR Mixer	MBBR - 1	Submersible Mechanical	Explosion Proof (if classified)	* VFD 460/60/3	
SM-2	MBBR Mixer	MBBR - 2	Submersible Mechanical	Explosion Proof (if classified)	* VFD 460/60/3	
SM-3	MBBR Mixer	MBBR - 3	Submersible Mechanical	Explosion Proof (if classified)	* VFD 460/60/3	Future - No Bid

**Clarifier Schedule**

ID	Diameter, ft	Side Water Depth, ft	Center Column Diameter, in	Motor Data				Electrical	Additional Notes
				Type	Speed, rpm	HP	Starter Type		
C-1	Final Clarifier	46.0	12.0	18.0	TEFC, Explosion Proof (if classified)	3,990	5.0	FVNR	460/60/3

**Mechanical Screen Schedule**

ID	Location	Type	PHWW Flow Rate, gpm	TSS, lbs./day	Angle of Inclination, degrees	Motor Data				Electrical	Screen Opening, mm	Wash Water Requirements	
						Type	Speed, rpm	HP	Starter Type			Min Flow Rate, gpm	Min Pressure, psi
MS-1	Pretreatment Room	Spiral Screen	1,812.5	2,888.0	35	TEFC, Explosion Proof	1,800	1.0	FVNR	460/60/3	3.0	18.0	30.0
MS-2	Pretreatment Room	Spiral Screen	1,812.5	2,888.0	35	TEFC, Explosion Proof	1,800	1.0	FVNR	460/60/3	3.0	18.0	30.0

**Grit Removal Schedule**

ID	Location	Type	Flow Rate, gpm	Chamber Diameter, ft	Outlet Channel Width, in	Inlet Pipe Diameter, in	Wash Water Requirements		Additional Notes
							Min Flow Rate, gpm	Min Pressure, psi	
GR-1	Pretreatment Room	Non-Mechanical	1,812.5	9	24	12	50.0	50.0	

**Grit Dewatering Schedule**

ID	Location	Type	Flow Rate, gpm	Wash Water Requirements		Motor Data				Electrical	Grit Load, lbs./hr	Additional Notes
				Min Flow Rate, gpm	Min Pressure, psi	Type	Speed, rpm	HP	Starter Type			
GW-1	Pretreatment Bldg.	Screw	75.0	25.0	50.0	TEFC, Explosion Proof	1,800	1.0	FVNR	460/60/3	2,000	

**Crane Schedule**

ID	Location	Base Connection	Model	Minimum Lifting Capability, lbs.	Approved Manufacturer	Additional Notes
LS Hoist	Recirculation Lift Station / MBBR	Pedestal Base / Wall Mount (MBBR walkway)	5PT20 Commander 2000	1,000	Them	
GC Hoist	Pretreatment Room	Pedestal Base	Captain 1500 Series 571	1,500	Them	

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WASTEWATER TREATMENT FACILITY  
IMPROVEMENTS  
SANBORN, IOWA

EQUIPMENT SCHEDULE

ADDENDUM #1

09/2018

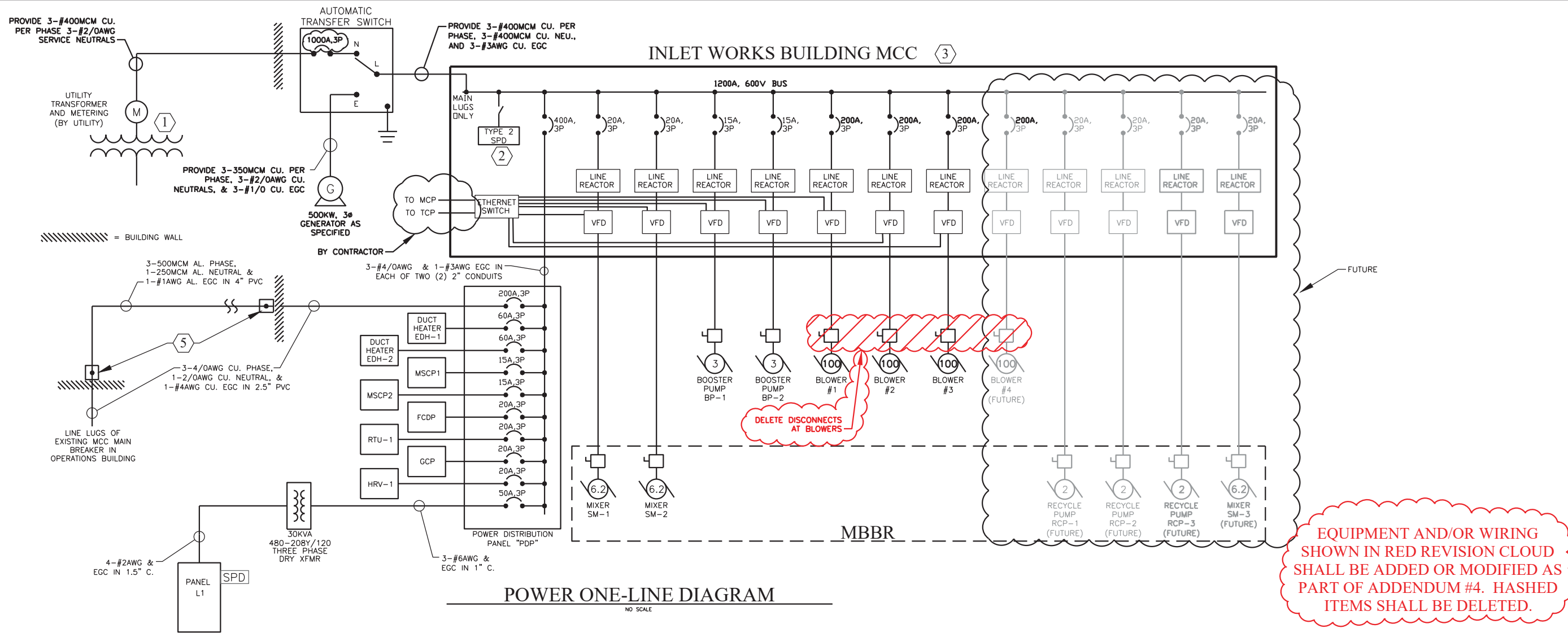
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REVISIONS

Project Manager: RDN  
Designer: RDN  
Project Number: 812951  
Phone: (712) 472-2531



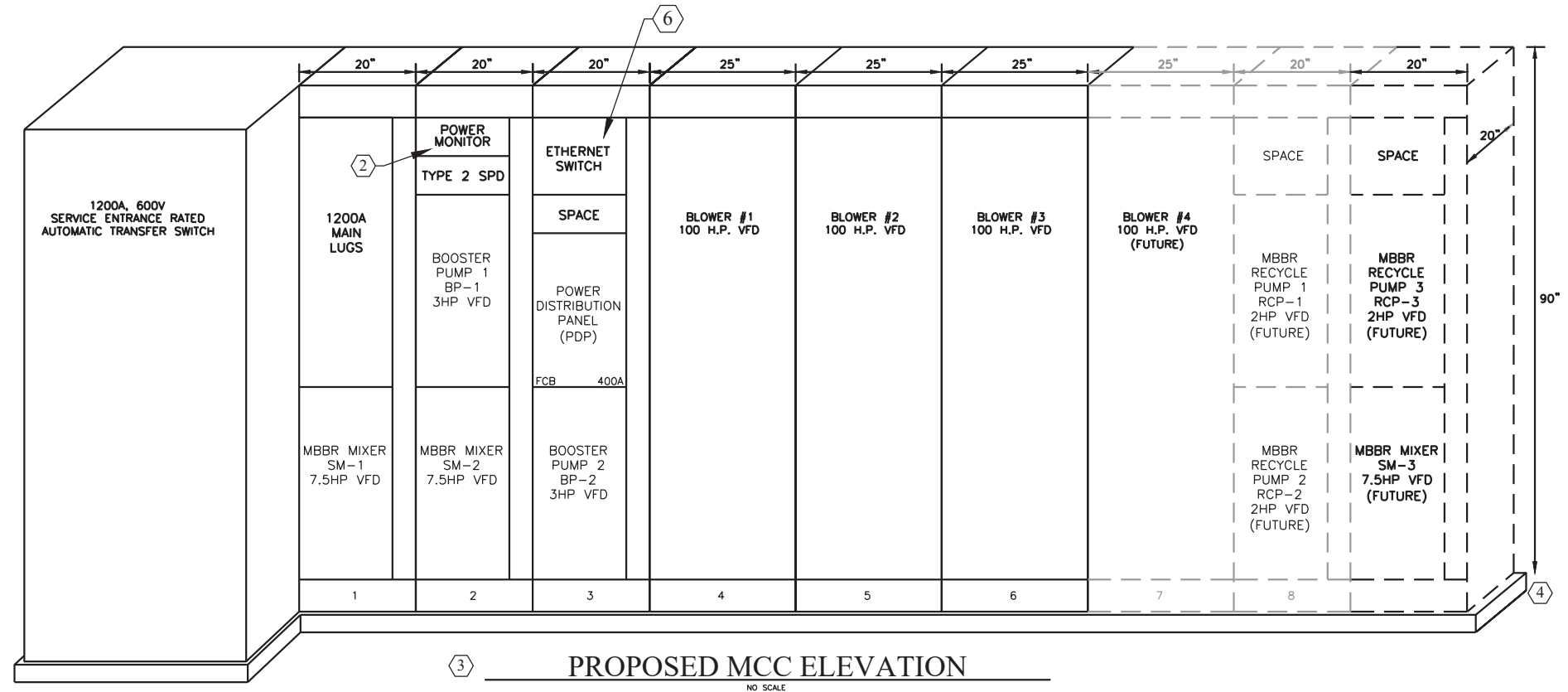
Sheet  
P705\_ADD#4



POWER ONE-LINE DIAGRAM  
NO SCALE

NOTES

- ① SEE NOTE 5 ON SHEET E1 FOR UTILITY TERMINATION DETAILS.
- ② PROVIDE, INTEGRAL TO THE MCC, A TYPE 2 SURGE PROTECTIVE DEVICE WITH DISCONNECT MEANS.
- ③ MCC SHALL BE FURNISHED BY CONTROL INTEGRATOR (THOMPSON INNOVATION), INSTALLED BY CONTRACTOR.
- ④ PROVIDE HOUSEKEEPING PAD 3" THICK, EXTENDING TO 1" BEYOND THE FRONT OF THE INSTALLED EQUIPMENT, EXTENDING TO 6" BEYOND THE LENGTH REQUIRED BY FUTURE SECTIONS.
- ⑤ PROVIDE TWO (2) TERMINAL BOXES, ONE ON EXTERIOR OF BOTH THE INLET WORKS BUILDING AND THE OPERATIONS BUILDING FOR CONVERSION TO LARGE CONDUCTORS. IN EACH OF TWO (2) 24"x24"x12" NEMA 3R JUNCTION BOXES, PROVIDE ONE (1) MARATHON SPECIAL PRODUCTS MODEL 1443557 3-POLE TERMINAL BLOCK (PHASE), ONE (1) MODEL 1441557 1-POLE TERMINAL BLOCK (NEUTRAL), AND ONE THOMAS & BETTS BLACKBURN MODEL ADR11-21 (EGC).
- ⑥ PROVIDE FACTORY-INSTALLED ETHERNET SWITCH WITH PRE-WIRED AND TESTED CONNECTIVITY TO ALL VFDs AND CONTAINING NOT LESS THAN FOUR (4) EMPTY PORTS.



PROPOSED MCC ELEVATION  
NO SCALE

1	9/18	Addendum #2
2	10/18	Addendum #4

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