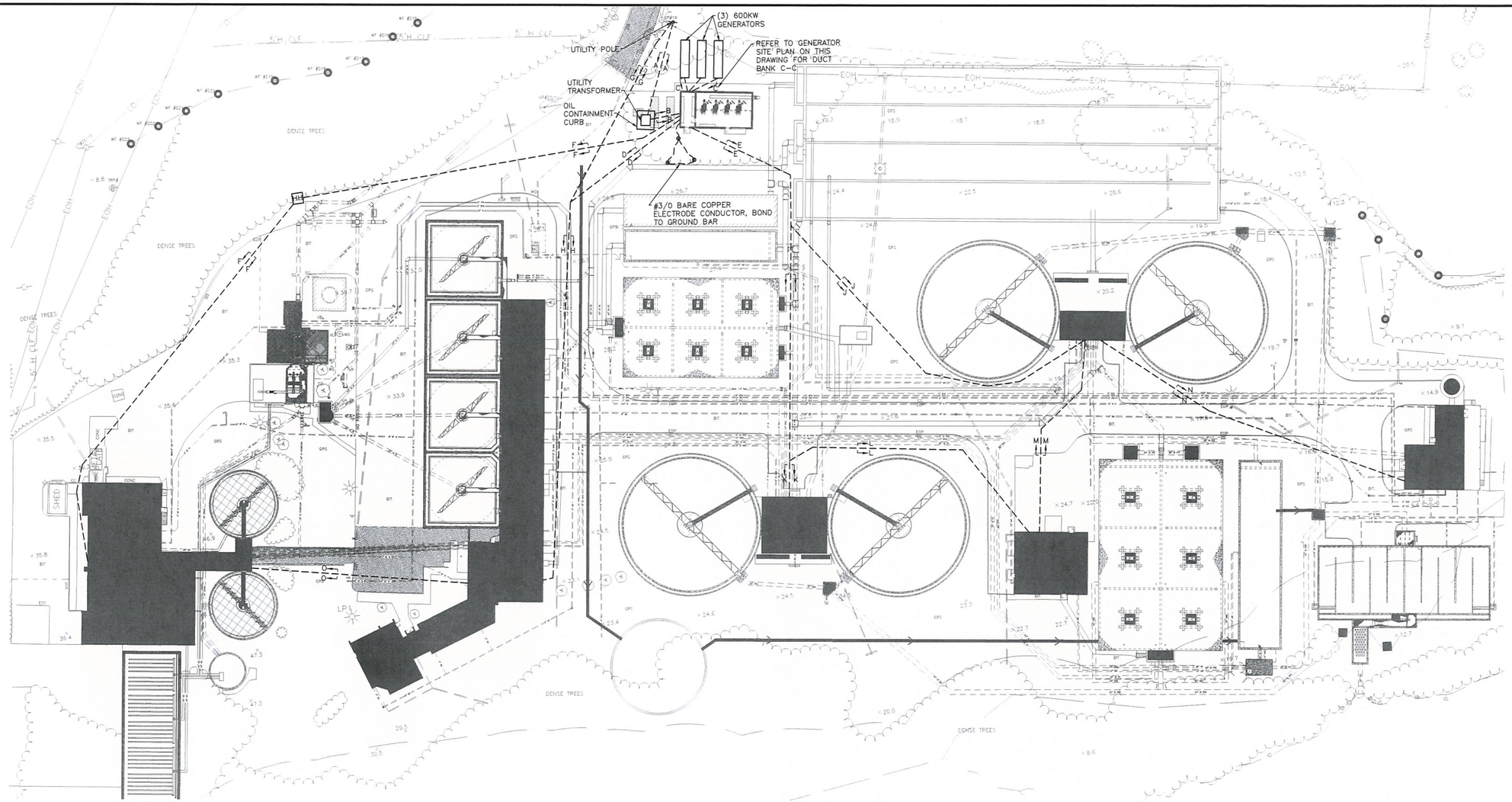
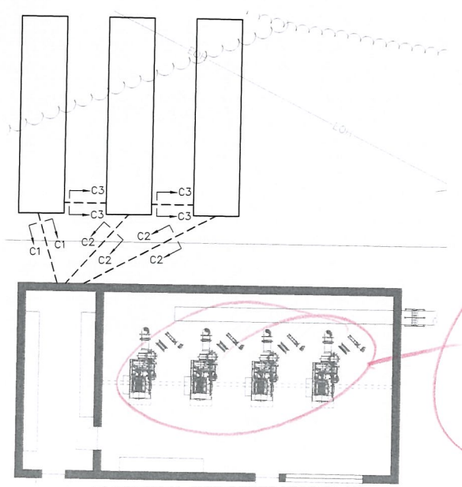


ELECTRICAL SITE PLAN
SCALE: 1" = 40'-0"



ELECTRICAL SITE GENERATOR PLAN
SCALE: 1" = 10'-0"

Blowers in Phase 2

Bonded

PREPARED BY

BETA
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REGISTERED PROFESSIONAL

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SUBCONSULTANT

SAR ENGINEERING, INC.
Mechanical/Electrical Engineers
150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Site Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

40 0 40 80
SCALE IN FEET: 1"=40'

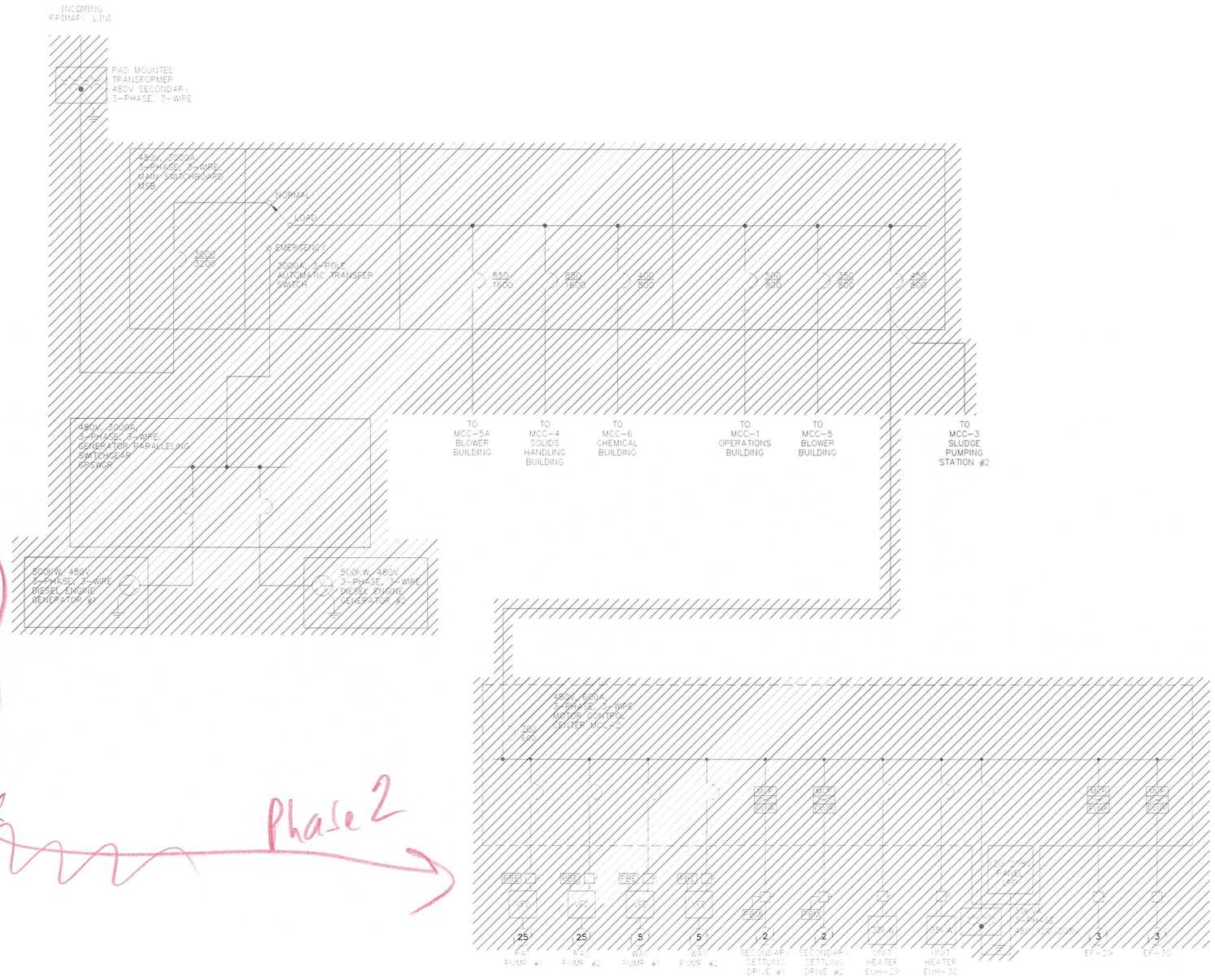
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

E-0.2

5/29/2020 9:12 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC SITE PLAN.DWG (BETA STB BW STB)



THIS IS ~~Cost Avoid~~ ~~by 11~~ Phase 2

MAIN POWER TO BLDGS IN PHASE 1 ONLY

Phase 2

NO DEMO IN PH 1

MAIN SWITCHBOARD & SLUDGE PUMPING STATION #1 ONE LINE DIAGRAM – DEMOLITION

NOT TO SCALE

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617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

ELECTRICAL
MAIN SWITCHBOARD & SLUDGE PUMPING STATION #1
ONE LINE DIAGRAM - DEMOLITION

NO.	REVISIONS	DATE

DRAWN BY:	RB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

NONE

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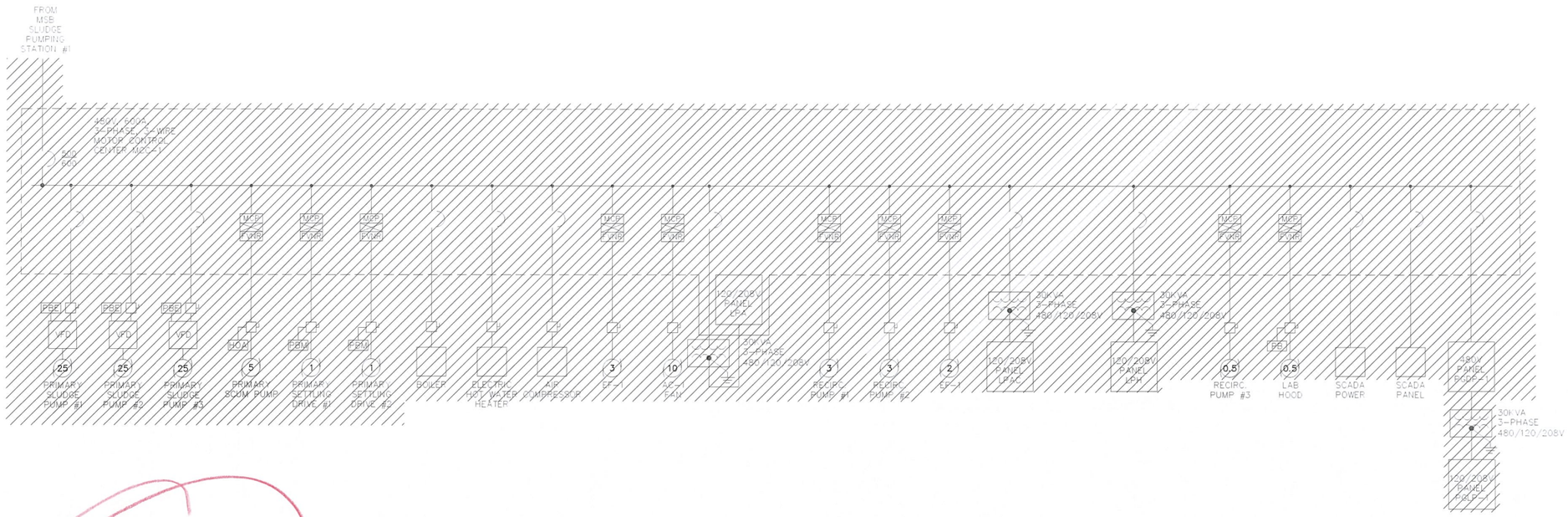
For Review Only

SHEET NO.

E-0.3

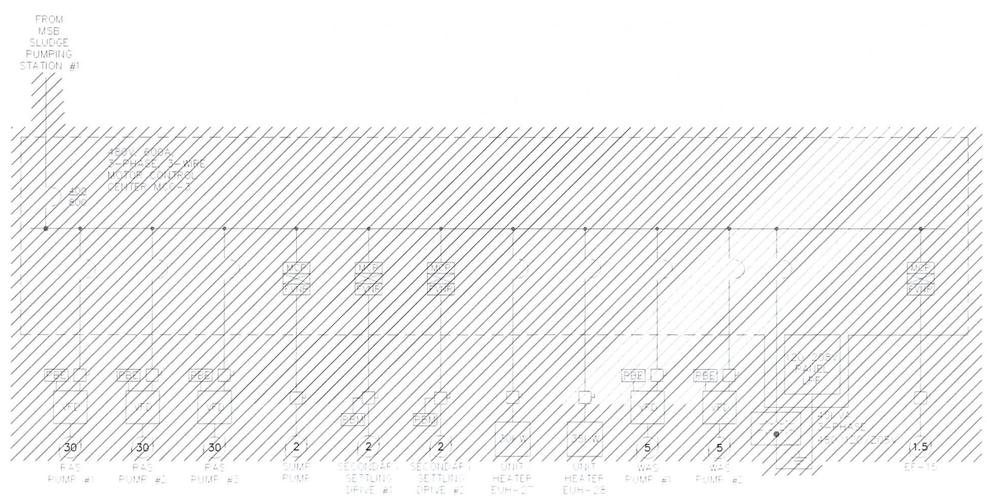
5/29/2020 9:21 AM W:\YEAR_2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC ONE LINE - PHASE 1.DWG (BETA STB BW.STB)



OPERATIONS BUILDING ONE LINE DIAGRAM – DEMOLITION

NOT TO SCALE

Phase 2
NO DEMO IN PH 1.



SLUDGE PUMPING STATION #2 ONE LINE DIAGRAM – DEMOLITION

NOT TO SCALE

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web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

ELECTRICAL OPERATION BUILDING & SLUDGE PUMPING STATION #2 ONE LINE DIAGRAM - DEMOLITION

NO.	REVISIONS	DATE

DRAWN BY:	RB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

NONE

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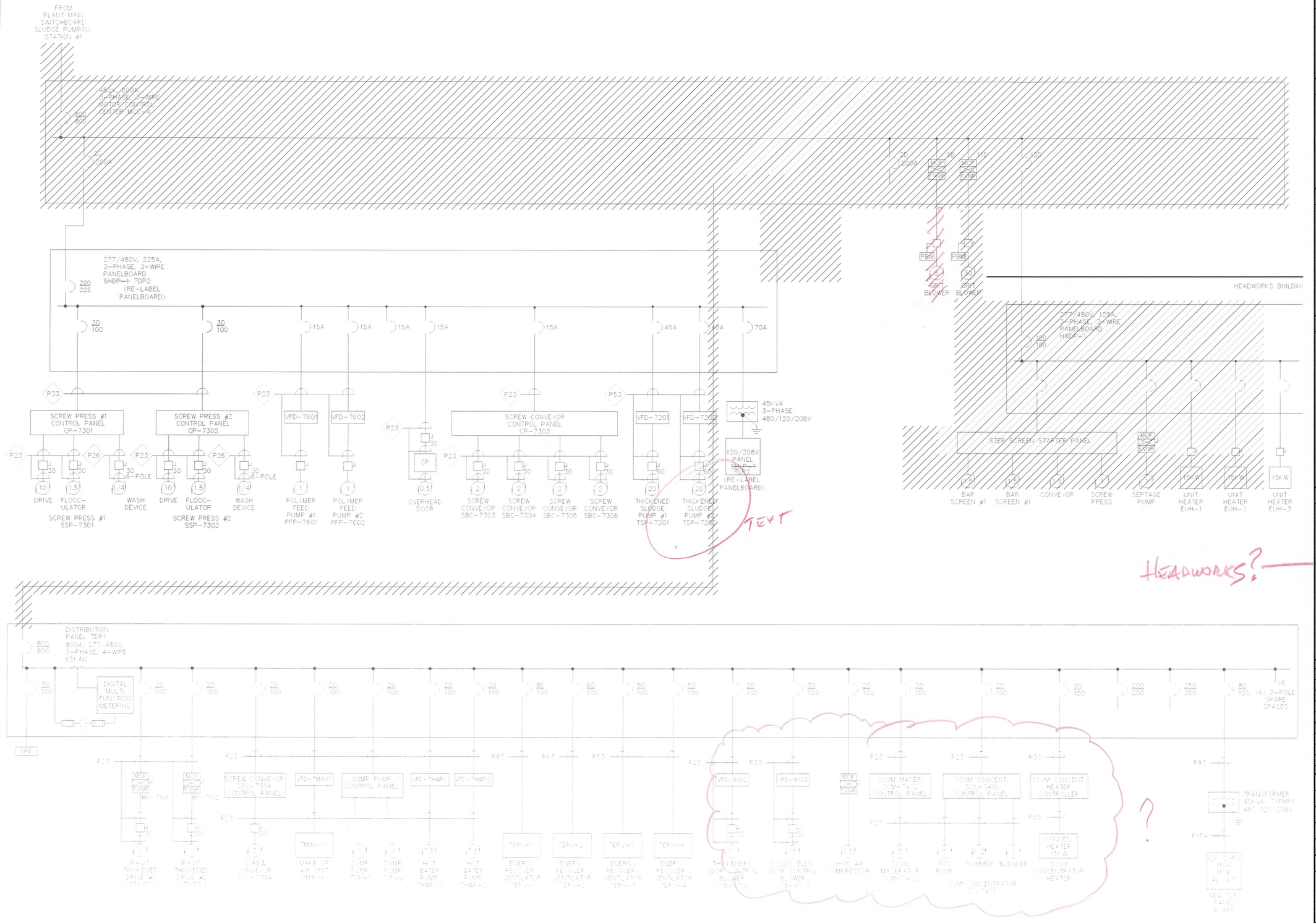
For Review Only

SHEET NO.

E-0.4

5/29/2020 9:22 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC ONE LINE - PHASE 1.DWG (BETA STB BW.STB)



SOLIDS HANDLING BUILDING AND HEADWORKS ONE LINE DIAGRAM – DEMOLITION

NOT TO SCALE

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web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

ELECTRICAL SOLIDS HANDLING BUILDING & SLUDGE PUMPING STATION #2 ONE LINE DIAGRAM - DEMOLITION

NO.	REVISIONS	DATE

DRAWN BY:	RB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

NONE

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

E-0.5

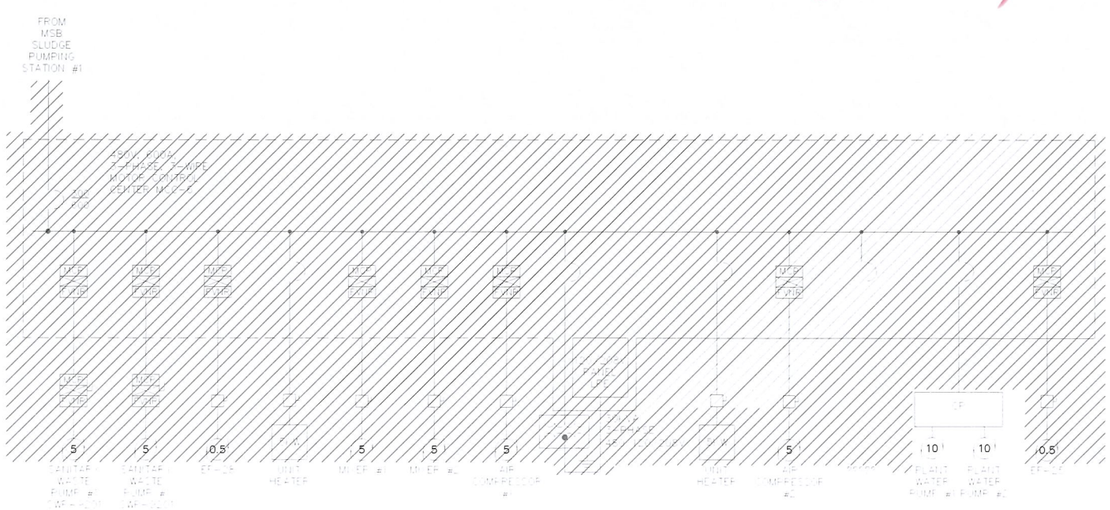
5/26/2020 9:22 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC ONE LINE - PHASE 1.DWG (BETA STB BW.STB)

Phase 2

BLOWER BUILDING ONE LINE DIAGRAM – DEMOLITION

NOT TO SCALE

(Phase 2)



CHEMICAL BUILDING ONE LINE DIAGRAM – DEMOLITION

NOT TO SCALE

PREPARED BY

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Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

ELECTRICAL BLOWER BUILDING & CHEMICAL BUILDING ONE LINE DIAGRAM - DEMOLITION

NO.	REVISIONS	DATE

DRAWN BY:	RB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

NONE

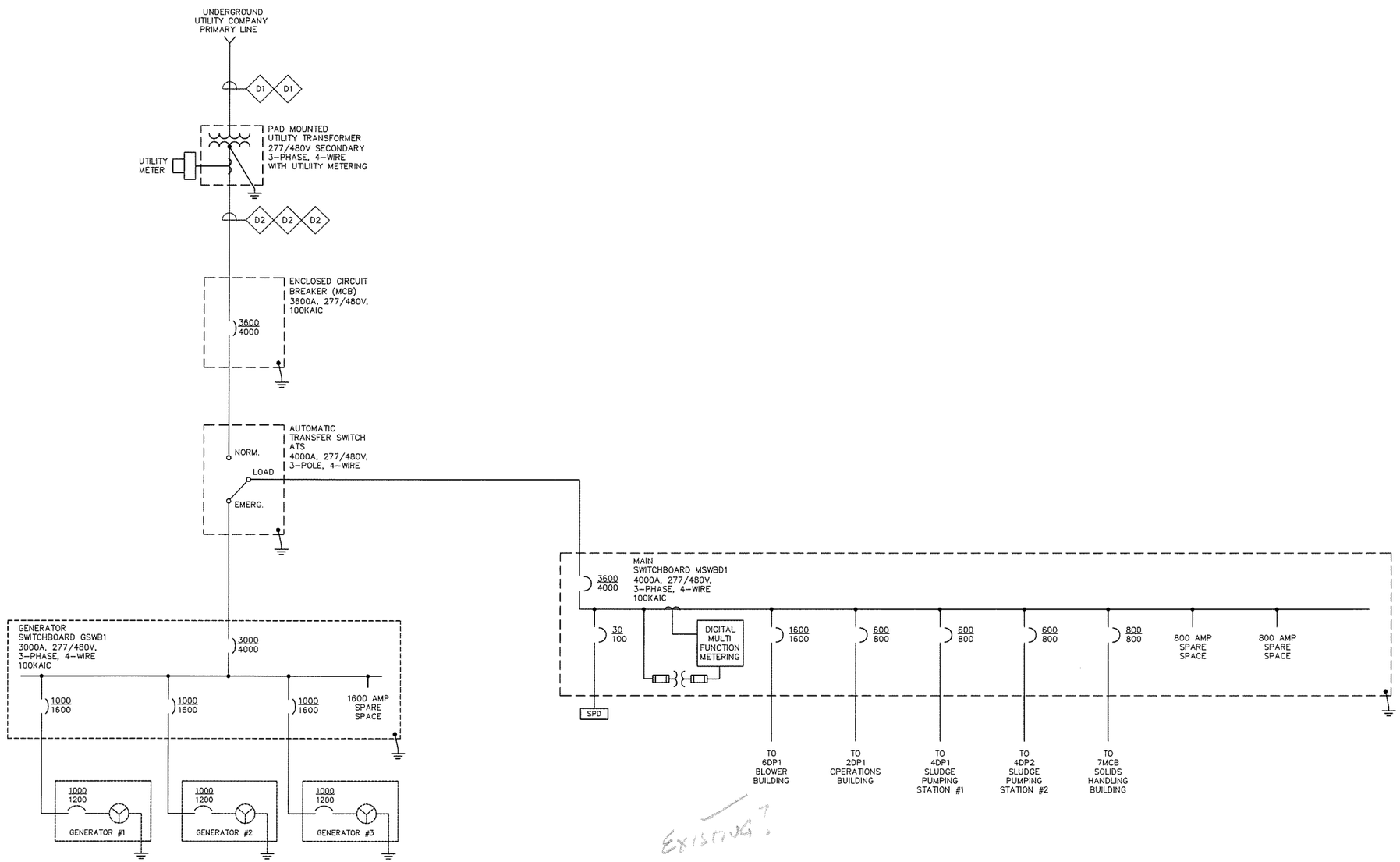
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

E-0.6

5/29/2020 9:22 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC ONE LINE - PHASE 1.DWG (BETA STB BW.STB)



Existing?

MAIN SWITCHBOARD ONE LINE DIAGRAM

NOT TO SCALE

PREPARED BY

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PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

ELECTRICAL MAIN SWITCHBOARD ONE LINE DIAGRAM

NO.	REVISIONS	DATE

DRAWN BY:	RB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

NONE

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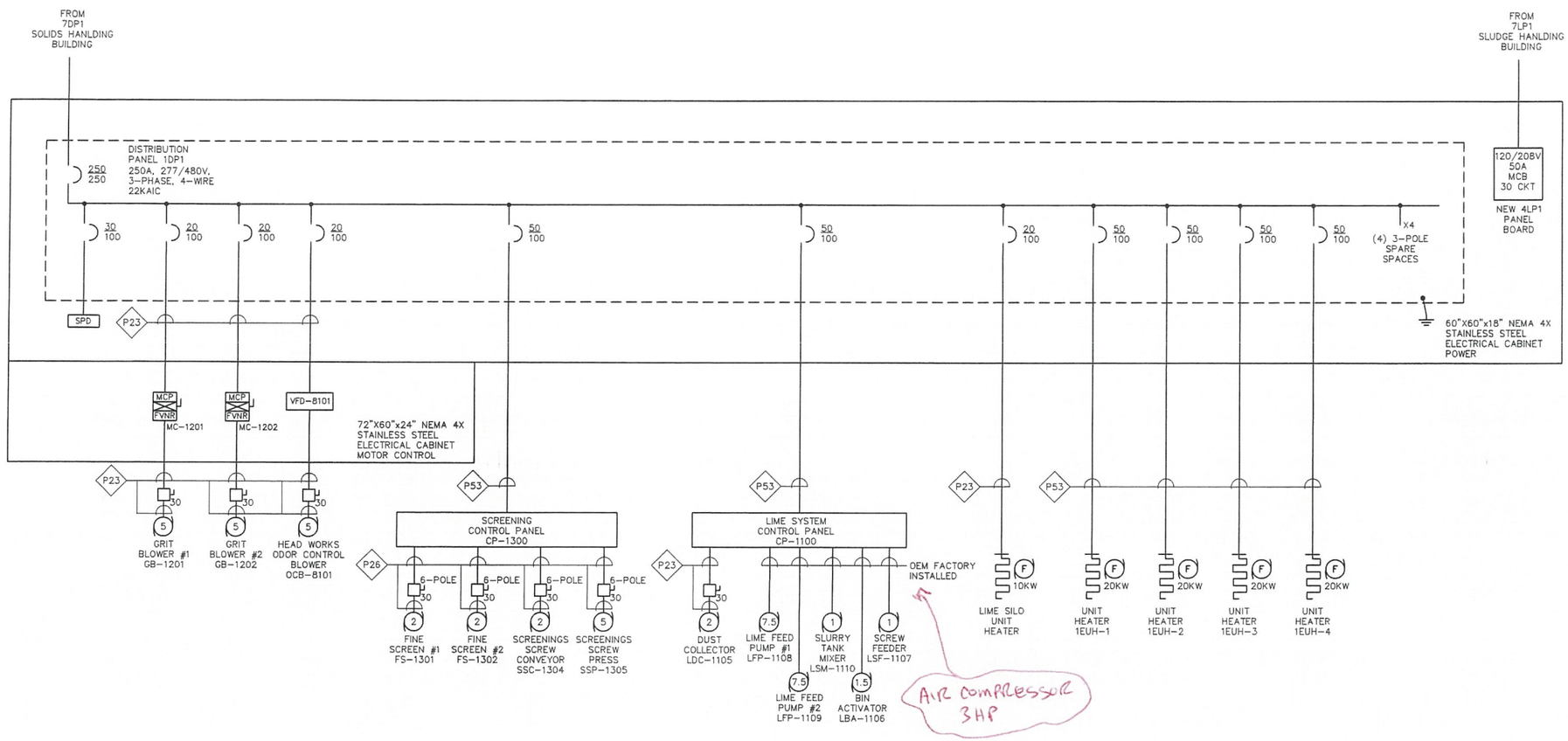
For Review Only

SHEET NO.

E-0.7

4/29/2020 9:22 AM M:\YEAR - 2018\18009.00 TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC ONE LINE - PHASE 1.DWG (BETA STB BW STB)



HEADWORKS ONE LINE DIAGRAM

NOT TO SCALE

PREPARED BY

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SUBCONSULTANT

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PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

ELECTRICAL HEADWORKS ONE LINE DIAGRAM

NO	REVISIONS	DATE

DRAWN BY:	RB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

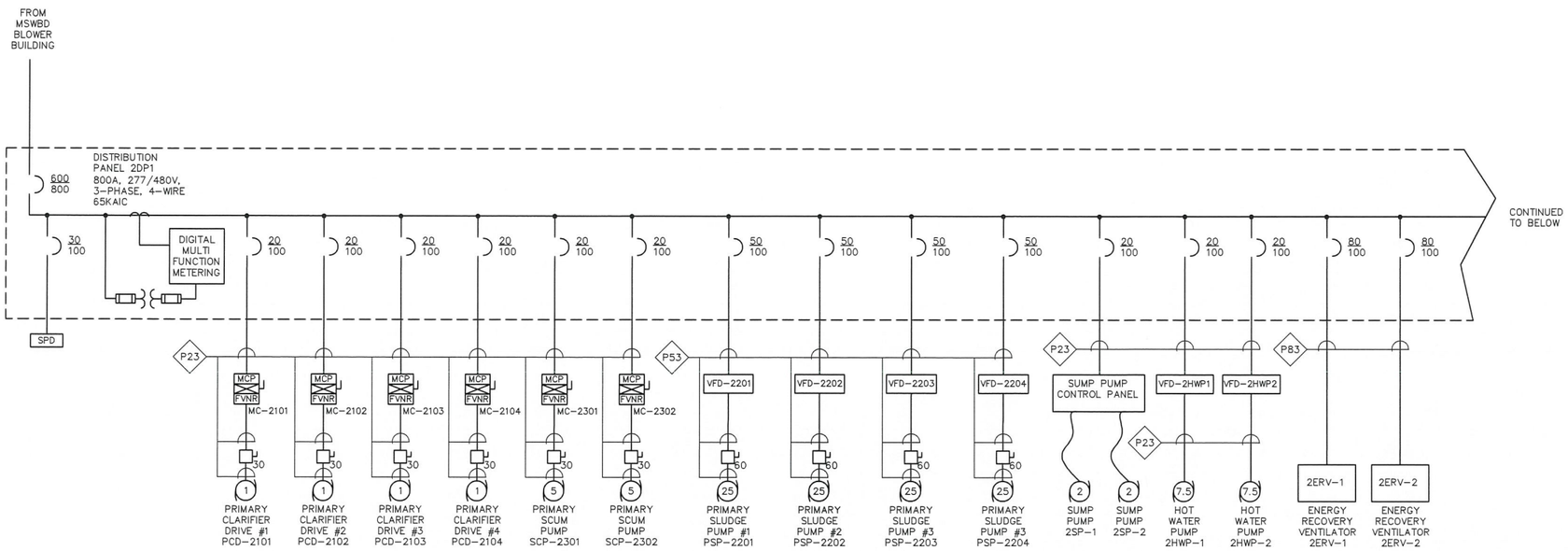
NONE

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

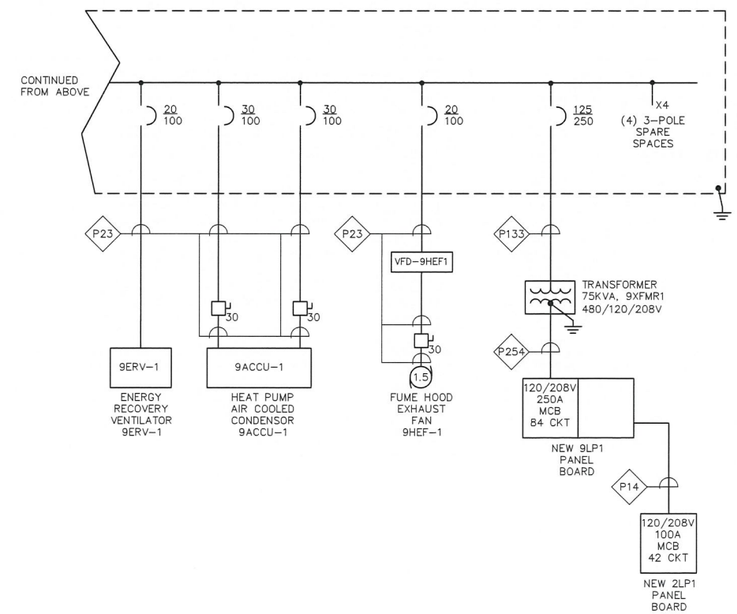
SHEET NO.

E-0.8



BEANOON, VERIFY HPs

WILL NEED TO ADD PLANT WATER BOOSTER PUMPS



OPERATIONS BUILDING ONE LINE DIAGRAM

NOT TO SCALE

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web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

ELECTRICAL OPERATIONS BUILDING ONE LINE DIAGRAM

NO.	REVISIONS	DATE

DRAWN BY:	RB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

NONE

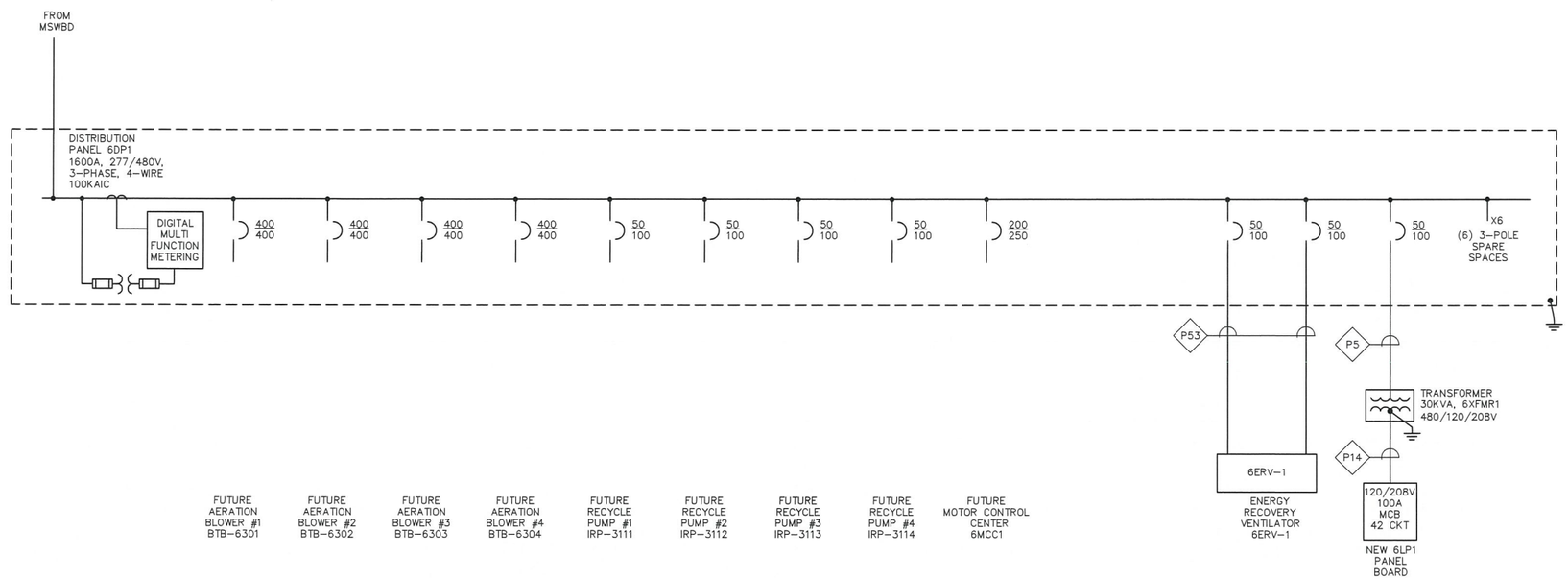
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

E-0.9

5/29/2020 9:22 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC ONE LINE - PHASE 1.DWG (BETA STB BW.STB)



Phase 2

Blower

~~CHEMICAL~~ BUILDING ONE LINE DIAGRAM

NOT TO SCALE

PREPARED BY

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NOT FOR CONSTRUCTION (CONCEPTUAL)

SUBCONSULTANT

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Mechanical/Electrical Engineers
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Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

ELECTRICAL
BLOWER BUILDING
ONE LINE DIAGRAM

NO.	REVISIONS	DATE

DRAWN BY:	RB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

NONE

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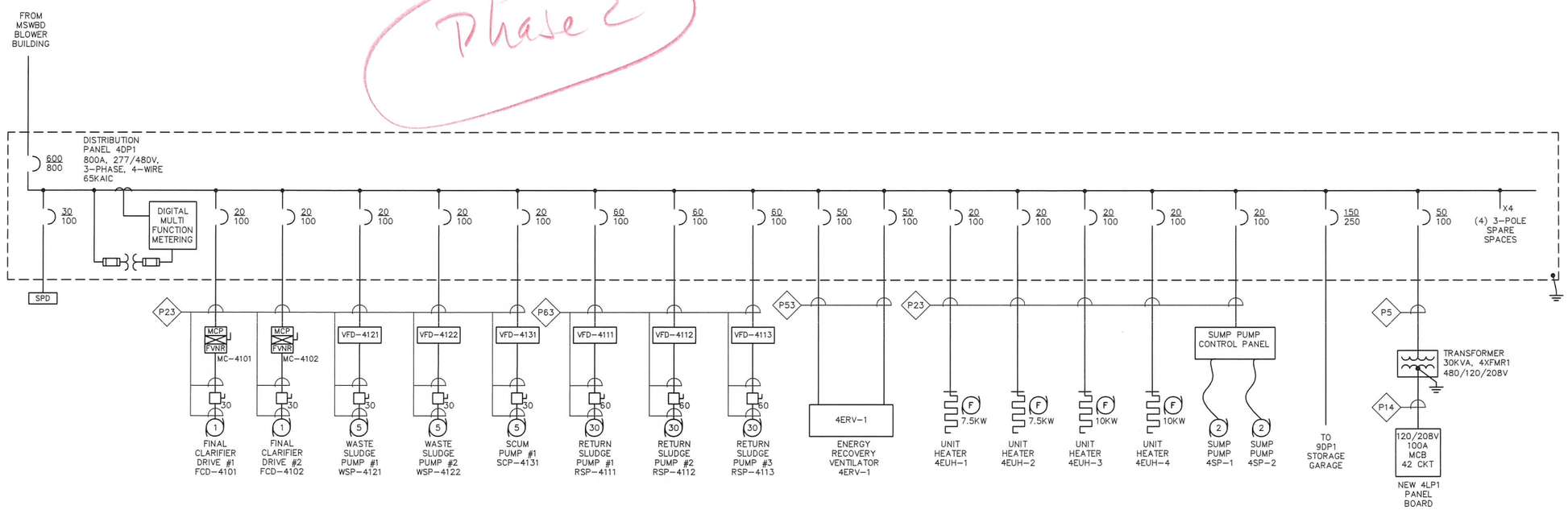
For Review Only

SHEET NO.

E-0.10

5/29/2020 9:23 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC ONE LINE - PHASE 1.DWG (BETA STB BW.STB)

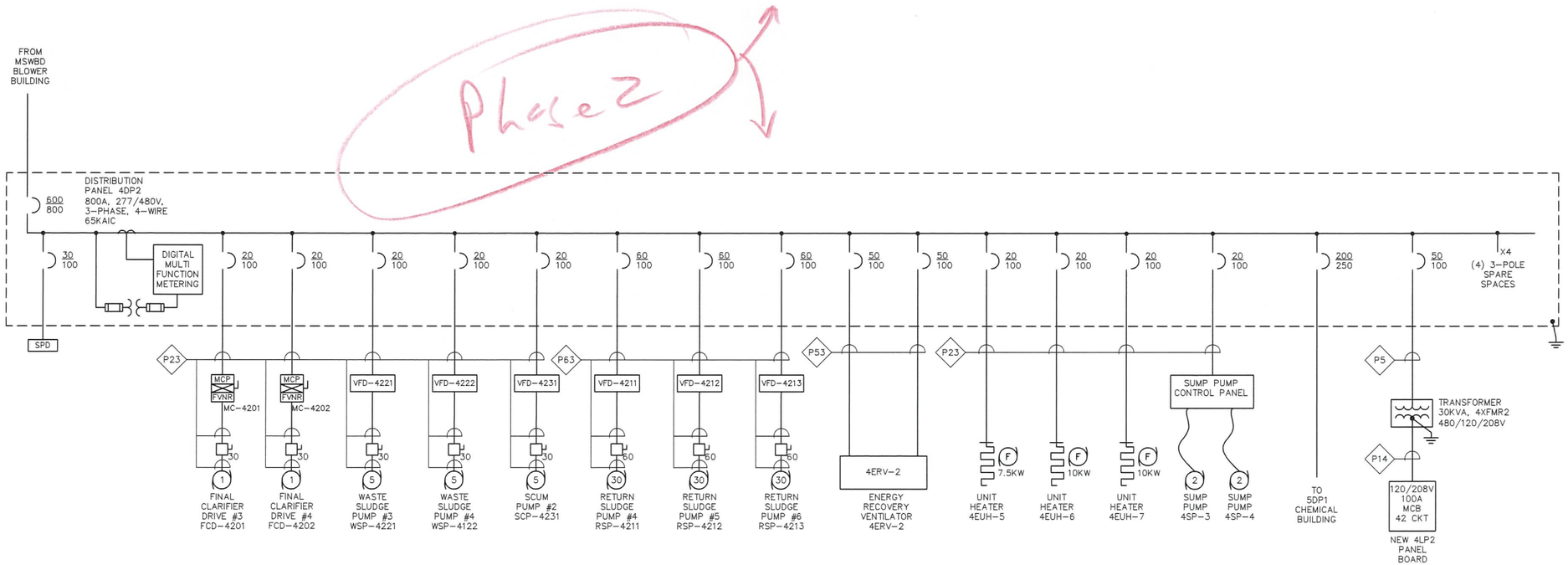
Phase 2



SLUDGE PUMPING STATION #1 ONE LINE DIAGRAM

NOT TO SCALE

Phase 2



SLUDGE PUMPING STATION #2 ONE LINE DIAGRAM

NOT TO SCALE

PREPARED BY

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Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

ELECTRICAL SLUDGE PUMPING STATION #1 & SLUDGE PUMPING STATION #2 ONE LINE DIAGRAM

NO.	REVISIONS	DATE

DRAWN BY:	RB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

NONE

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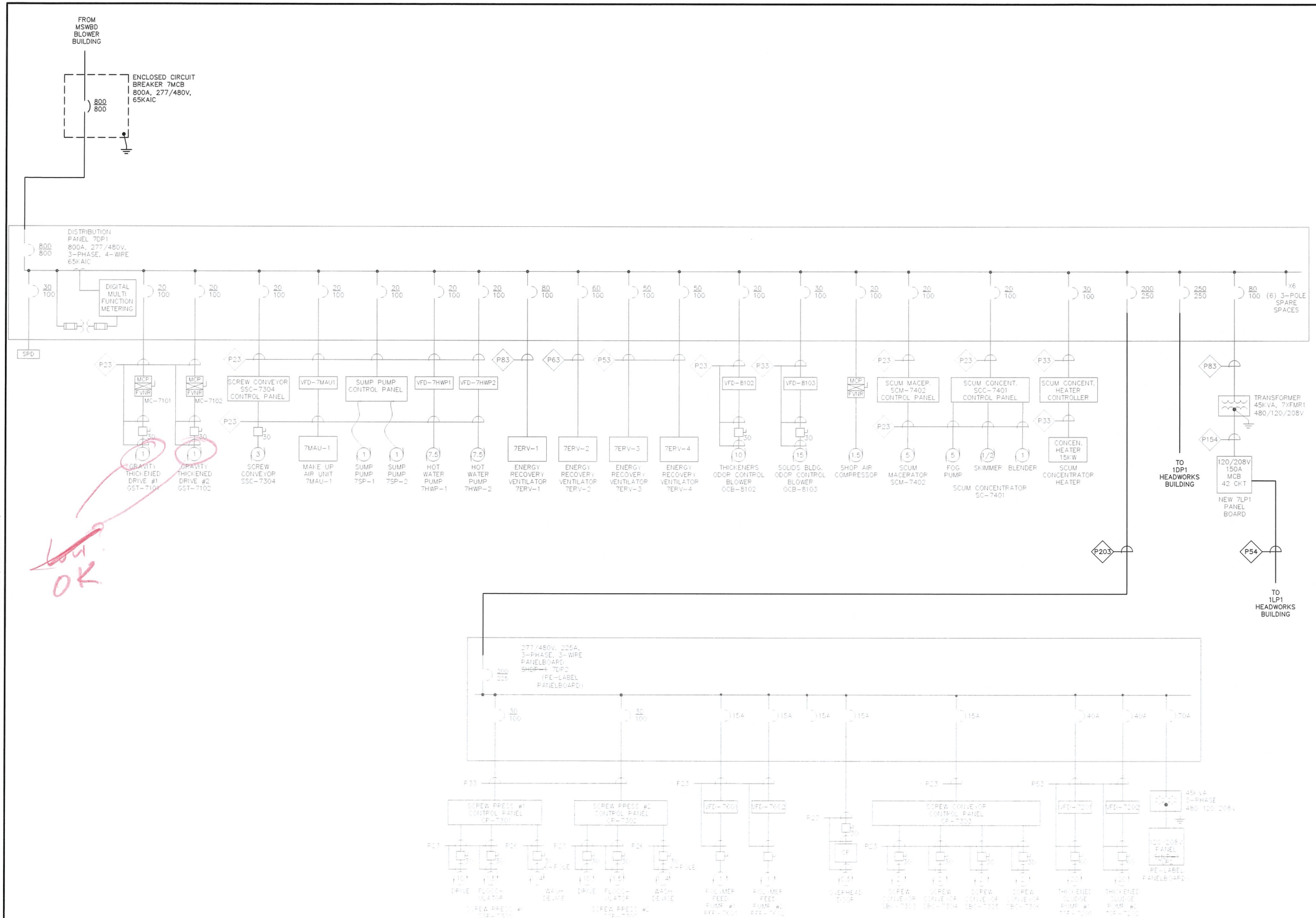
SHEET NO.

E-0.11

5/29/2020 9:23 AM W:\YEAR 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC ONE LINE - PHASE 1.DWG (BETA STB BW.STB)



SOLIDS HANDLING BUILDING ONE LINE DIAGRAM

NOT TO SCALE

PREPARED BY

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150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

ELECTRICAL
SOLIDS HANDLING
BUILDING
ONE LINE DIAGRAM

NO.	REVISIONS	DATE

DRAWN BY:	RB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

NONE

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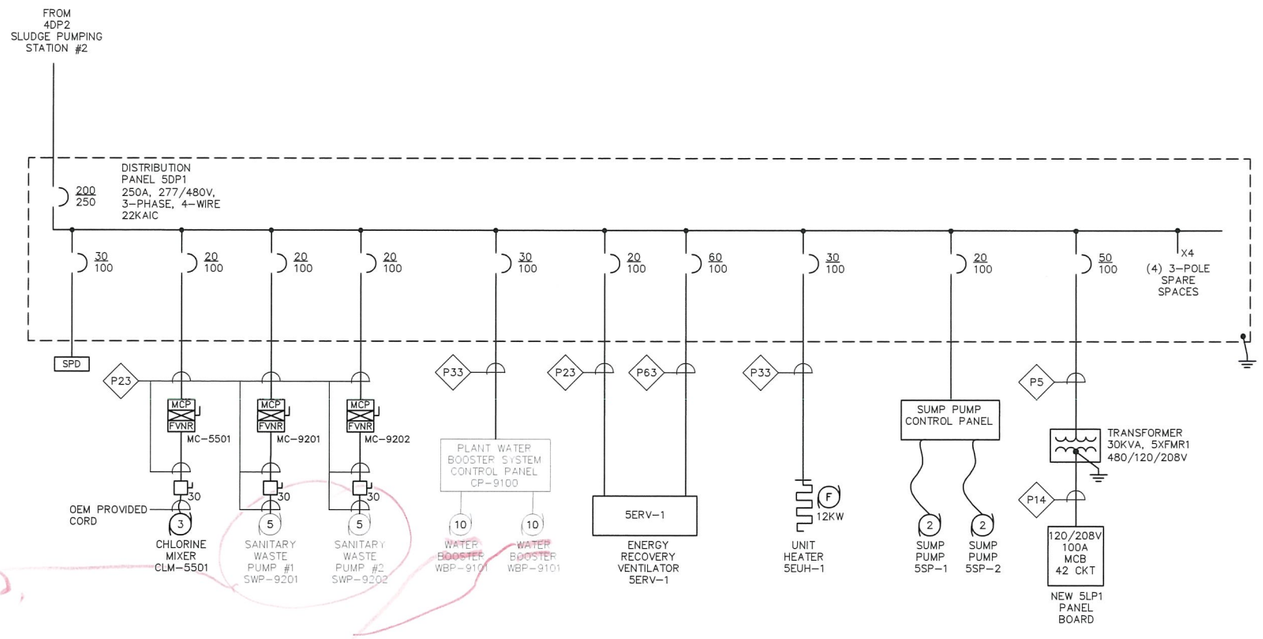
SHEET NO.

E-0.12

5/29/2020 9:23 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC ONE LINE - PHASE 1.DWG (BETA STB BW-STB)



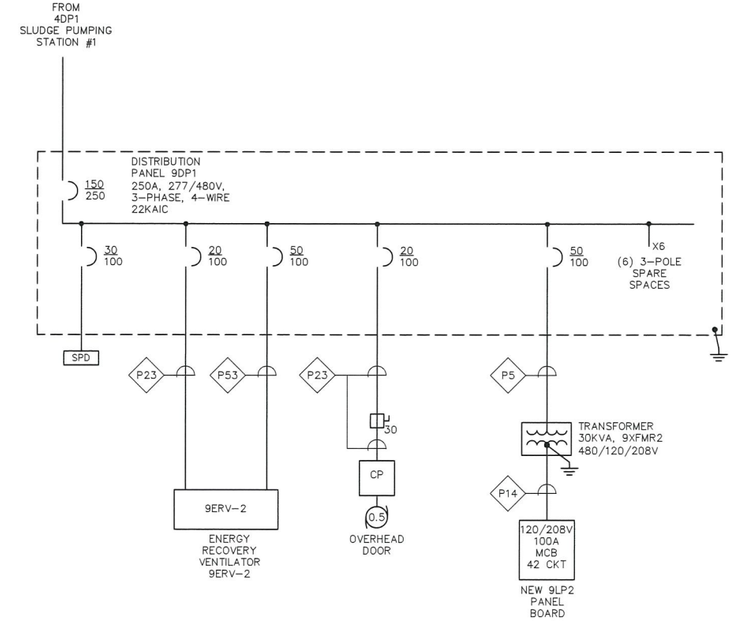
Boun,

PLANT WATER PUMP

BOOSTER PUMPS IN PRIMARY GALLERY

CHEMICAL BUILDING ONE LINE DIAGRAM

NOT TO SCALE



Phase 2.

STORAGE GARAGE ONE LINE DIAGRAM

NOT TO SCALE

PREPARED BY

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REGISTERED PROFESSIONAL

NOT FOR CONSTRUCTION (CONCEPTUAL)

SUBCONSULTANT

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Mechanical/Electrical Engineers
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Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

ELECTRICAL
CHEMICAL BUILDING &
STORAGE GARAGE
ONE LINE DIAGRAM

NO.	REVISIONS	DATE

DRAWN BY:	RB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

NONE

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For Review Only

SHEET NO.

E-0.13

5/29/2020 9:23 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC ONE LINE - PHASE 1.DWG (BETA STB BW.STB)

PANELBOARD SCHEDULE

NO. 1LP1 — LOCATION: HEADWORKS ELECTRICAL CABINET

120/208 V, 3 PH, 4 W, 100 A MAINS — 100 A SOLID NEUTRAL — 50 A MCB

10,000 AIC AT 120 V — 100 A GROUND BUS — – A MLO — SURFACE MOUNTING

CIRCUIT	DESCRIPTION OF LOAD	LOAD (KVA) Aø	Bø	Cø	BREAKER TRIP	POLE	BREAKER POLE	TRIP	LOAD (KVA) Aø	Bø	Cø	DESCRIPTION OF LOAD	CIRCUIT
1	HEADWORKS BLDG. INTERIOR LIGHTING	0.95			20	1	1	20	0.20			GAS DETECTION SYSTEM	2
3	HEADWORKS BLDG. EXTERIOR LIGHTING		0.25		20	1	1	20		–		SPARE	4
5	HEADWORKD BLDG. RECEPTACLES			0.8	20	1	1	20			–	SPARE	6
7	SPARE	–			20	1	1	20	–			SPARE	8
9	SPARE		–		20	1	1	20		–		SPARE	10
11	SPARE			–	20	1	1	20			–	SPARE	12
13	SPARE	–			20	1	1	20	–			SPARE	14
15	SPARE		–		20	1	1	20		–		SPARE	16
17	SPARE			–	20	1	1	20			–	SPARE	18
19	SPARE	–			20	1	1	20	–			SPARE	20
21	SPARE		–		20	1	1	20		–		SPARE	22
23	SPARE			–	20	1	1	20			–	SPARE	24
25	SPARE	–			20	1	1	20	–			SPARE	26
27	SPARE		–		20	1	1	20		–		SPARE	28
29	SPARE			–	20	1	1	20			–	SPARE	30
SUB-TOTAL CONNECTED		–	–	–								SUB-TOTAL CONNECTED	

*PROVIDE GFCI BREAKER

SUB-TOTAL CONNECTED KVA Aø = –
SUB-TOTAL CONNECTED KVA Bø = –
SUB-TOTAL CONNECTED KVA Cø = –
TOTAL CONNECTED KVA = –

PANELBOARD SCHEDULE

NO. 2LP1 — LOCATION: PRIMARY PIPE GALLERY

120/208 V, 3 PH, 4 W, 100 A MAINS — 100 A SOLID NEUTRAL — 100 A MCB

10,000 AIC AT 120 V — 100 A GROUND BUS — – A MLO — SURFACE MOUNTING

CIRCUIT	DESCRIPTION OF LOAD	LOAD (KVA) Aø	Bø	Cø	BREAKER TRIP	POLE	BREAKER POLE	TRIP	LOAD (KVA) Aø	Bø	Cø	DESCRIPTION OF LOAD	CIRCUIT
1	PRIMARY GALLERY & EXTERIOR LIGHTING	0.8			20	1	1	20	0.2			FLOW METER	2
3	PRIMARY GALLERY LIGHTING		0.7		20	1	1	20		0.4		LEVEL TRANSMITTERS	4
5	PRIMARY GALLERY RECEPTACLES			1.0	20	1	1	20			1.15	HOT WATER UNIT HEATERS	6
7	PRIMARY GALLERY RECEPTACLES	0.8			20	1	1	20	–			EXTERIOR RECEPTACLES	8
9	SPARE		–		20	1	1	20		–		SPARE	10
11	SPARE			–	20	1	1	20			–	SPARE	12
13	SPARE	–			20	1	1	20	–			SPARE	14
15	SPARE		–		20	1	1	20		–		SPARE	16
17	SPARE			–	20	1	1	20			–	SPARE	18
19	SPARE	–			20	1	1	20	–			SPARE	20
21	SPARE		–		20	1	1	20		–		SPARE	22
23	SPARE			–	20	1	1	20			–	SPARE	24
25	SPARE	–			20	1	1	20	–			SPARE	26
27	SPARE		–		20	1	1	20		–		SPARE	28
29	SPARE			–	20	1	1	20			–	SPARE	30
31	SPARE	–			20	1	1	20	–			SPARE	32
33	SPARE		–		20	1	1	20		–		SPARE	34
35	SPARE			–	20	1	1	20			–	SPARE	36
37	SPARE	–			20	1	1	20	–			SPARE	38
39	SPARE		–		20	1	1	20		–		SPARE	40
41	SPARE			–	20	1	1	20			–	SPARE	42
SUB-TOTAL CONNECTED		–	–	–					–	–	–	SUB-TOTAL CONNECTED	

*PROVIDE GFCI BREAKER

SUB-TOTAL CONNECTED KVA Aø = –
SUB-TOTAL CONNECTED KVA Bø = –
SUB-TOTAL CONNECTED KVA Cø = –
TOTAL CONNECTED KVA = –

FUTURE

PANELBOARD SCHEDULE

NO. 4LP1 — LOCATION: SLUDGE PUMP STATION #1

120/208 V, 3 PH, 4 W, 100 A MAINS — 100 A SOLID NEUTRAL — 100 A MCB

10,000 AIC AT 120 V — 100 A GROUND BUS — – A MLO — SURFACE MOUNTING

CIRCUIT	DESCRIPTION OF LOAD	LOAD (KVA) Aø	Bø	Cø	BREAKER TRIP	POLE	BREAKER POLE	TRIP	LOAD (KVA) Aø	Bø	Cø	DESCRIPTION OF LOAD	CIRCUIT
1	UPPER LEVEL & EXTERIOR LIGHTING	0.6			20	1	1	20	0.4			FLOW METERS	2
3	LOWER LEVEL LIGHTING		0.5		20	1	1	20		0.2		LEVEL TRANSMITTER	4
5	UPPER LEVEL RECETPACLES			0.8	20	1	1	20			–	SPARE	6
7	LOWER LEVEL RECEPTACLES	0.8			20	1	1	20	–			SPARE	8
9	ROOF RECEPTACLE & LIGHT		0.25		20	1	1	20		–		SPARE	10
11	FIRE ALARM CONTROL PANEL			0.50	20	1	1	20			–	SPARE	12
13	SPARE	–			20	1	1	20	–			SPARE	14
15	SPARE		–		20	1	1	20		–		SPARE	16
17	SPARE			–	20	1	1	20			–	SPARE	18
19	SPARE	–			20	1	1	20	–			SPARE	20
21	SPARE		–		20	1	1	20		–		SPARE	22
23	SPARE			–	20	1	1	20			–	SPARE	24
25	SPARE	–			20	1	1	20	–			SPARE	26
27	SPARE		–		20	1	1	20		–		SPARE	28
29	SPARE			–	20	1	1	20			–	SPARE	30
31	SPARE	–			20	1	1	20	–			SPARE	32
33	SPARE		–		20	1	1	20		–		SPARE	34
35	SPARE			–	20	1	1	20			–	SPARE	36
37	SPARE	–			20	1	1	20	–			SPARE	38
39	SPARE		–		20	1	1	20		–		SPARE	40
41	SPARE			–	20	1	1	20			–	SPARE	42
SUB-TOTAL CONNECTED		–	–	–					–	–	–	SUB-TOTAL CONNECTED	

*PROVIDE GFCI BREAKER

SUB-TOTAL CONNECTED KVA Aø = –
SUB-TOTAL CONNECTED KVA Bø = –
SUB-TOTAL CONNECTED KVA Cø = –
TOTAL CONNECTED KVA = –

FUTURE

PANELBOARD SCHEDULE

NO. 4LP2 — LOCATION: SLUDGE PUMP STATION #2

120/208 V, 3 PH, 4 W, 100 A MAINS — 100 A SOLID NEUTRAL — 100 A MCB

10,000 AIC AT 120 V — 100 A GROUND BUS — – A MLO — SURFACE MOUNTING

CIRCUIT	DESCRIPTION OF LOAD	LOAD (KVA) Aø	Bø	Cø	BREAKER TRIP	POLE	BREAKER POLE	TRIP	LOAD (KVA) Aø	Bø	Cø	DESCRIPTION OF LOAD	CIRCUIT
1	UPPER LEVEL & EXTERIOR LIGHTING	0.3			20	1	1	20	0.4			FLOW METERS	2
3	LOWER LEVEL LIGHTING		0.5		20	1	1	20		0.2		LEVEL TRANSMITTER	4
5	UPPER LEVEL RECETPACLES			0.6	20	1	1	20			–	SPARE	6
7	LOWER LEVEL RECEPTACLES	0.8			20	1	1	20	–			SPARE	8
9	ROOF RECEPTACLE & LIGHT		0.25		20	1	1	20		–		SPARE	10
11	FIRE ALARM CONTROL PANEL			0.50	20	1	1	20			–	SPARE	12
13	SPARE	–			20	1	1	20	–			SPARE	14
15	SPARE		–		20	1	1	20		–		SPARE	16
17	SPARE			–	20	1	1	20			–	SPARE	18
19	SPARE	–			20	1	1	20	–			SPARE	20
21	SPARE		–		20	1	1	20		–		SPARE	22
23	SPARE			–	20	1	1	20			–	SPARE	24
25	SPARE	–			20	1	1	20	–			SPARE	26
27	SPARE		–		20	1	1	20		–		SPARE	28
29	SPARE			–	20	1	1	20			–	SPARE	30
31	SPARE	–			20	1	1	20	–			SPARE	32
33	SPARE		–		20	1	1	20		–		SPARE	34
35	SPARE			–	20	1	1	20			–	SPARE	36
37	SPARE	–			20	1	1	20	–			SPARE	38
39	SPARE		–		20	1	1	20		–		SPARE	40
41	SPARE			–	20	1	1	20			–	SPARE	42
SUB-TOTAL CONNECTED		–	–	–					–	–	–	SUB-TOTAL CONNECTED	

*PROVIDE GFCI BREAKER

SUB-TOTAL CONNECTED KVA Aø = –
SUB-TOTAL CONNECTED KVA Bø = –
SUB-TOTAL CONNECTED KVA Cø = –
TOTAL CONNECTED KVA = –

PREPARED BY

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REGISTERED PROFESSIONAL

NOT FOR CONSTRUCTION (CONCEPTUAL)

SUBCONSULTANT

SAR ENGINEERING, INC.
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617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

ELECTRICAL PANELBOARD SCHEDULES

NO.	REVISIONS	DATE

DRAWN BY:	RB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO. E-0.14

6/29/2021 9:24 AM W:\EAR 2018\18009.00 - TAUNTON WWTF UPGRADE\ELECTRICAL DEPARTMENT\18009.00 ELEC DIAGRAMS AND DETAILS.DWG (BETA STB BW STB)

PANELBOARD SCHEDULE

NO. 5LP1 — LOCATION: CHEMICAL HANDLING BUILDING

120/208 V, 3 PH, 4 W, 100 A MAINS — 100 A SOLID NEUTRAL — 100 A MCB

10,000 AIC AT 120 V — 100 A GROUND BUS — – A MLO — SURFACE MOUNTING

CIRCUIT	DESCRIPTION OF LOAD	LOAD (KVA) Aø	Bø	Cø	BREAKER TRIP	POLE	BREAKER POLE	TRIP	LOAD (KVA) Aø	Bø	Cø	DESCRIPTION OF LOAD	CIRCUIT
1	UPPER LEVEL & EXTERIOR LIGHTING	0.78			20	1	1	20	0.40			FLOW METERS	2
3	LOWER LEVEL LIGHTING		0.55		20	1	1	20		0.20		ANALIZERS	4
5	UPPER LEVEL RECETPACLES			–	20	1	1	20			0.30	FINAL SAMPLER RECEPTACLE	6 *
7	LOWER LEVEL RECEPTACLES	–			20	1	1	20	0.20			SANITARY LEVEL TRANSMITTER	8
9	FIRE ALARM CONTROL PANEL		0.50		20	1	1	20		0.30		NaOCl LEVEL TRANSMITTER & FILL STATION	10
11	SPARE			–	20	1	1	20			0.30	NaHSO LEVEL TRANSMITTER & FILL STATION	12
13	SPARE	–			20	1	1	20	1.0			NaOCL PUMP #1 & NaHSO PUMP #1	14
15	SPARE		–		20	1	1	20		1.0		NaOCL PUMP #2 & NaHSO PUMP #2	16
17	SPARE			–	20	1	1	20			–	SPARE	18
19	SPARE	–			20	1	1	20	–			SPARE	20
21	SPARE		–		20	1	1	20		–		SPARE	22
23	SPARE			–	20	1	1	20			–	SPARE	24
25	SPARE	–			20	1	1	20	–			SPARE	26
27	SPARE		–		20	1	1	20		–		SPARE	28
29	SPARE			–	20	1	1	20			–	SPARE	30
31	SPARE	–			20	1	1	20	–			SPARE	32
33	SPARE		–		20	1	1	20		–		SPARE	34
35	SPARE			–	20	1	1	20			–	SPARE	36
37	SPARE	–			20	1	1	20	–			SPARE	38
39	SPARE		–		20	1	1	20		–		SPARE	40
41	SPARE			–	20	1	1	20			–	SPARE	42
SUB-TOTAL CONNECTED		–	–	–					–	–	–	SUB-TOTAL CONNECTED	

* PROVIDE GFCI BREAKER

SUB-TOTAL CONNECTED KVA Aø = –

SUB-TOTAL CONNECTED KVA Bø = –

SUB-TOTAL CONNECTED KVA Cø = –

TOTAL CONNECTED KVA = –

PANELBOARD SCHEDULE

NO. 6LP1 — LOCATION: BLOWER BUILDING

120/208 V, 3 PH, 4 W, 100 A MAINS — 100 A SOLID NEUTRAL — 100 A MCB

10,000 AIC AT 120 V — 100 A GROUND BUS — – A MLO — SURFACE MOUNTING

CIRCUIT	DESCRIPTION OF LOAD	LOAD (KVA) Aø	Bø	Cø	BREAKER TRIP	POLE	BREAKER POLE	TRIP	LOAD (KVA) Aø	Bø	Cø	DESCRIPTION OF LOAD	CIRCUIT
1	LIGHTING	0.21			20	1	1	20	–			SPARE	2
3	BLOWER RM. RECEPTACLES		0.80		20	1	1	20		–		SPARE	4
5	ELEC RM RECEPTACLES			0.40	20	1	1	20			–	SPARE	6
7	FIRE ALARM CONTROL PANEL	0.50			20	1	1	20	–			SPARE	8
9	SPARE		–		20	1	1	20		–		SPARE	10
11	SPARE			–	20	1	1	20			–	SPARE	12
13	SPARE	–			20	1	1	20	–			SPARE	14
15	SPARE		–		20	1	1	20		–		SPARE	16
17	SPARE			–	20	1	1	20			–	SPARE	18
19	SPARE	–			20	1	1	20	–			SPARE	20
21	SPARE		–		20	1	1	20		–		SPARE	22
23	SPARE			–	20	1	1	20			–	SPARE	24
25	SPARE	–			20	1	1	20	–			SPARE	26
27	SPARE		–		20	1	1	20		–		SPARE	28
29	SPARE			–	20	1	1	20			–	SPARE	30
31	SPARE	–			20	1	1	20	–			SPARE	32
33	SPARE		–		20	1	1	20		–		SPARE	34
35	SPARE			–	20	1	1	20			–	SPARE	36
37	SPARE	–			20	1	1	20	–			SPARE	38
39	SPARE		–		20	1	1	20		–		SPARE	40
41	SPARE			–	20	1	1	20			–	SPARE	42
SUB-TOTAL CONNECTED		–	–	–					–	–	–	SUB-TOTAL CONNECTED	

* PROVIDE GFCI BREAKER

SUB-TOTAL CONNECTED KVA Aø = –

SUB-TOTAL CONNECTED KVA Bø = –

SUB-TOTAL CONNECTED KVA Cø = –

TOTAL CONNECTED KVA = –

PANELBOARD SCHEDULE

NO. 9LP1 – 1ST TUB — LOCATION: OPERATIONS BLDG. ELECTRIC ROOM

120/208 V, 3 PH, 4 W, 250 A MAINS — 250 A SOLID NEUTRAL — 250 A MCB

22,000 AIC AT 120 V — 250 A GROUND BUS — – A MLO — SURFACE MOUNTING

CIRCUIT	DESCRIPTION OF LOAD	LOAD (KVA) Aø	Bø	Cø	BREAKER TRIP	POLE	BREAKER POLE	TRIP	LOAD (KVA) Aø	Bø	Cø	DESCRIPTION OF LOAD	CIRCUIT
1	SPARE	–			20	1	1	20	–			SPARE	2
3	SPARE		–		20	1	1	20		–		SPARE	4
5	SPARE			–	20	1	1	20			–	SPARE	6
7	SPARE	–			20	1	1	20	–			SPARE	8
9	SPARE		–		20	1	1	20		–		SPARE	10
11	SPARE			–	20	1	1	20			–	SPARE	12
13	SPARE	–			20	1	1	20	–			SPARE	14
15	SPARE		–		20	1	1	20		–		SPARE	16
17	SPARE			–	20	1	1	20			–	SPARE	18
19	SPARE	–			20	1	1	20	–			SPARE	20
21	SPARE		–		20	1	1	20		–		SPARE	22
23	SPARE			–	20	1	1	20			–	SPARE	24
25	SPARE	–			20	1	1	20	–			SPARE	26
27	SPARE		–		20	1	1	20		–		SPARE	28
29	SPARE			–	20	1	1	20			–	SPARE	30
31	SPARE	–			20	1	1	20	–			SPARE	32
33	SPARE		–		20	1	1	20		–		SPARE	34
35	SPARE			–	20	1	1	20			–	SPARE	36
37		–					1	20	–			SPARE	38
39	PANELBOARD 2LP1		–		100	3	1	20		–		SPARE	40
41				–			1	20			–	SPARE	42

* PROVIDE GFCI BREAKER

PANELBOARD SCHEDULE

NO. 9LP1 – 2ND TUB — LOCATION: OPERATIONS BLDG. ELECTRIC ROOM

120/208 V, 3 PH, 4 W, 250 A MAINS — 250 A SOLID NEUTRAL — – A MCB

22,000 AIC AT 120 V — 250 A GROUND BUS — 250 A MLO — SURFACE MOUNTING

CIRCUIT	DESCRIPTION OF LOAD	LOAD (KVA) Aø	Bø	Cø	BREAKER TRIP	POLE	BREAKER POLE	TRIP	LOAD (KVA) Aø	Bø	Cø	DESCRIPTION OF LOAD	CIRCUIT
43	SPARE	–			20	1	1	20	–			SPARE	44
45	SPARE		–		20	1	1	20		–		SPARE	46
47	SPARE			–	20	1	1	20			–	SPARE	48
49	SPARE	–			20	1	1	20	–			SPARE	50
51	SPARE		–		20	1	1	20		–		SPARE	52
53	SPARE			–	20	1	1	20			–	SPARE	54
55	SPARE	–			20	1	1	20	–			SPARE	56
57	SPARE		–		20	1	1	20		–		SPARE	58
59	SPARE			–	20	1	1	20			–	SPARE	60
61	SPARE	–			20	1	1	20	–			SPARE	62
63	SPARE		–		20	1	1	20		–		SPARE	64
65	SPARE			–	20	1	1	20			–	SPARE	66
67	SPARE	–			20	1	1	20	–			SPARE	68
69	SPARE		–		20	1	1	20		–		SPARE	70
71	SPARE			–	20	1	1	20			–	SPARE	72
77	SPARE	–			20	1	1	20	–			SPARE	74
75	SPARE		–		20	1	1	20		–		SPARE	76
77	SPARE			–	20	1	1	20			–	SPARE	78
79	SPARE	–			20	1	1	20	–			SPARE	80
81	SPARE		–		20	1	1	20		–		SPARE	82
83	SPARE			–	20	1	1	20			–	SPARE	84
SUB-TOTAL CONNECTED		–	–	–					–	–	–	SUB-TOTAL CONNECTED	

* PROVIDE GFCI BREAKER

SUB-TOTAL CONNECTED KVA Aø = –

SUB-TOTAL CONNECTED KVA Bø = –

SUB-TOTAL CONNECTED KVA Cø = –

TOTAL CONNECTED KVA = –

PREPARED BY

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REGISTERED PROFESSIONAL

NOT FOR CONSTRUCTION (CONCEPTUAL)

SUBCONSULTANT

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PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

ELECTRICAL PANELBOARD SCHEDULES

NO.	REVISIONS	DATE

DRAWN BY:	RB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO. E-0.15

5/20/2020 9:24 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC DIAGRAMS AND DETAILS.DWG (BETA STB BW.STB)

PANELBOARD SCHEDULE

NO. 9LP2 — LOCATION: OLD BLOWER BUILDING

120/208 V, 3 PH, 4 W, 100 A MAINS — 100 A SOLID NEUTRAL — 100 A MCB

10,000 AIC AT 120 V — 100 A GROUND BUS — – A MLO — SURFACE MOUNTING

CIRCUIT	DESCRIPTION OF LOAD	LOAD (KVA) Aφ	Bφ	Cφ	BREAKER TRIP	POLE		BREAKER POLE	TRIP	LOAD (KVA) Aφ	Bφ	Cφ	DESCRIPTION OF LOAD	CIRCUIT
1	LIGHTING	0.70			20	1		1	20	–			SPARE	2
3	RECEPTACLES		1.08		20	1		1	20		–		SPARE	4
5	RECEPTACLES			1.08	20	1		1	20			–	SPARE	6
7	FIRE ALARM CONTROL PANEL	0.50			20	1		1	20	–			SPARE	8
9	ROOF RECEPTACLE & LIGHT		0.25		20	1		1	20		–		SPARE	10
11	SPARE			–	20	1		1	20			–	SPARE	12
13	SPARE	–			20	1		1	20	–			SPARE	14
15	SPARE		–		20	1		1	20		–		SPARE	16
17	SPARE			–	20	1		1	20			–	SPARE	18
19	SPARE	–			20	1		1	20	–			SPARE	20
21	SPARE		–		20	1		1	20		–		SPARE	22
23	SPARE			–	20	1		1	20			–	SPARE	24
25	SPARE	–			20	1		1	20	–			SPARE	26
27	SPARE		–		20	1		1	20		–		SPARE	28
29	SPARE			–	20	1		1	20			–	SPARE	30
31	SPARE	–			20	1		1	20	–			SPARE	32
33	SPARE		–		20	1		1	20		–		SPARE	34
35	SPARE			–	20	1		1	20			–	SPARE	36
37	SPARE	–			20	1		1	20	–			SPARE	38
39	SPARE		–		20	1		1	20		–		SPARE	40
41	SPARE			–	20	1		1	20			–	SPARE	42
SUB-TOTAL CONNECTED		–	–	–						–	–	–	SUB-TOTAL CONNECTED	

*PROVIDE GFCI BREAKER

SUB-TOTAL CONNECTED KVA Aφ = –

SUB-TOTAL CONNECTED KVA Bφ = –

SUB-TOTAL CONNECTED KVA Cφ = –

TOTAL CONNECTED KVA = –

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER & CATALOG SERIES	LAMPS TYPE	LAMPS LUMENS	VOLTS	WATTS	MOUNTING TYPE	MOUNTING HEIGHT	REMARKS
F1	96" LED ENCLOSED AND GASKETED INDUSTRIAL LIGHTING FIXTURE.	LITHONIA FEM-L96-9000LM-IMAFL-MVOLT-35K-80CRI	LED 3500K	8124lm	120	54	PENDANT	13'-5"ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED	
F2	48" LED ENCLOSED AND GASKETED INDUSTRIAL LIGHTING FIXTURE.	LITHONIA FEM-L48-4000LM-IMAFL-MVOLT-35K-80CRI	LED 3500K	3615lm	120	24	PENDANT	13'-5"ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED	
F3	48" LED ENCLOSED AND GASKETED INDUSTRIAL LIGHTING FIXTURE.	LITHONIA FEM-L48-4000LM-IMAFL-MVOLT-35K-80CRI	LED 3500K	3615lm	120	24	SURFACE		
F4	CLASS I DIV.1 EXPLOSION PROOF LED GLOBE LIGHT FIXTURE	HUBBEL HLEML-45-30-X2-AN	LED 5000K	2880lm	120	45	PENDANT		
F5	2x2 LED LIGHTING FIXTURE	– –	LED –	–	120	–	RECESSED		
F6	2x2 LED LIGHTING FIXTURE	– –	LED –	–	120	–	RECESSED		
W1	EXTERIOR BUILDING MOUNTED LED WALL PACK LIGHT FIXTURE	LITHONIA TWP-LED-20C-700-50K-T3M-120-PE-DDXB	LED 5000K	4233lm	120	45	WALL		FIXTURE CIRCUIT TO BE CONNECTED TO AND CONTROLLED BY A TIME CLOCK SWITCH
W2	EXTERIOR BUILDING MOUNTED LED MINI WALL PACK LIGHT FIXTURE	LITHONIA TWS-LED-P1-50K	LED 5000K	1476lm	120	25	WALL		FIXTURE CIRCUIT TO BE CONNECTED TO AND CONTROLLED BY A TIME CLOCK SWITCH
	SELF CONTAINED EMERGENCY LIGHTING BATTERY UNIT NEMA 4 WITH TWO LIGHTING HEADS	REFER TO SPECIFICATIONS	LED	–	120	8W	WALL		INSTALL 3/4"C, 2#12, 1#12GND TO REMOTE HEADS
	SEALED-BEAM WEATHERPROOF REMOTE LIGHTING FIXTURE WITH TWO LIGHTING HEADS	REFER TO SPECIFICATIONS	LED	–	120	8W	WALL		
	EMERGENCY EXIT SIGN LED TYPE WITH BATTERY BACK-UP NEMA 4X	REFER TO SPECIFICATIONS	LED	–	120	3W	WALL		

LIGHTING FIXTURE SCHEDULES NOTES:

1. THE CATALOG NUMBERS LISTED ARE GIVEN AS A GUIDE TO THE DESIGN AND QUALITY OF FIXTURE DESIRED. EQUIVALENT DESIGNS, MATERIALS, DIMENSIONS, COEFFICIENT OF UTILIZATIONS AND EQUAL QUALITY FIXTURES OF OTHER MANUFACTURERS WILL BE ACCEPTABLE.

POWER CABLE/CONDUIT SCHEDULE

SYMBOL	CONDUIT SIZE*	CONDUCTORS*	GND*
P22	3/4"	(2)#12	(1)#12
P23	3/4"	(3)#12	(1)#12
P26	3/4"	(6)#12	(1)#12
P32	3/4"	(2)#10	(1)#10
P33	3/4"	(3)#10	(1)#10
P53	3/4"	(3)#8	(1)#10
P54	3/4"	(4)#8	(1)#10
P63	1"	(3)#6	(1)#8
P64	1"	(4)#6	(1)#8
P83	1 1/4"	(3)#4	(1)#8
P84	1 1/4"	(4)#4	(1)#8
P103	1 1/2"	(3)#3	(1)#6
P104	1 1/2"	(4)#3	(1)#6
P113	1 1/2"	(3)#2	(1)#6
P114	1 1/2"	(4)#2	(1)#6
P133	2"	(3)#1	(1)#6
P134	2"	(4)#1	(1)#6
P153	2"	(3)#1/0	(1)#6
P154	2"	(4)#1/0	(1)#6
P173	2 1/2"	(3)#2/0	(1)#6
P174	2 1/2"	(4)#2/0	(1)#6
P203	2 1/2"	(3)#3/0	(1)#4
P204	2 1/2"	(4)#3/0	(1)#4
P233	3"	(3)#4/0	(1)#4
P234	3"	(4)#4/0	(1)#4
P253	3"	(3)250KCMIL	(1)#4
P254	3"	(4)250KCMIL	(1)#4
P404	4"	(4)500KCMIL	(1)#2/0

SIGNAL CABLE/CONDUIT SCHEDULE

SYMBOL	CONDUIT SIZE	CONDUCTORS
S	1"	VENDER PROVIDED
S1	3/4"	1-2/C#16 TSP
S13	3/4"	1-3/C#16 TSP
S2	3/4"	2-2/C#16 TSP
S23	3/4"	2-3/C#16 TSP
S3	1"	3-2/C#16 TSP
S33	1"	3-3/C#16 TSP
S4	1"	4-2/C#16 TSP
S5	1"	5-2/C#16 TSP
S6	1 1/2"	6-2/C#16 TSP
S7	1 1/2"	7-2/C#16 TSP
S8	1 1/2"	8-2/C#16 TSP
S9	1 1/2"	9-2/C#16 TSP
S10	2"	10-2/C#16 TSP
TC1	3/4"	8/C#18

TELE/DATA CABLE/CONDUIT SCHEDULE

SYMBOL	CONDUIT SIZE	CABLES
TD1	1"	1-CAT6
TD2	1"	2-CAT6
FO6	1"	6 STRAND FIBER OPTIC
FO12	2"	12 STRAND FIBER OPTIC

CONTROL CABLE/CONDUIT SCHEDULE

SYMBOL	CONDUIT SIZE	CONDUCTORS
C2	3/4"	2#14
C4	3/4"	4#14
C5	3/4"	5#14
C6	3/4"	6#14
C7	3/4"	7#14
C8	3/4"	8#14
C9	3/4"	9#14
C10	3/4"	10#14
C12	3/4"	12#14
C16	1"	16#14
C20	1"	20#14
C30	1"	30#14

NOTE: CONDUIT AND CONDUCTOR SIZES ARE TO BE PER THE ABOVE SCHEDULES UNLESS OTHERWISE NOTED.

PREPARED BY

BETA
www.BETA-Inc.com

REGISTERED PROFESSIONAL

NOT FOR CONSTRUCTION (CONCEPTUAL)

SUBCONSULTANT

SAR ENGINEERING, INC.
Mechanical/Electrical Engineers
150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

ELECTRICAL PANELBOARD, LIGHTING, & CABLE/CONDUIT SCHEDULES

NO.	REVISIONS	DATE

DRAWN BY:	RB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

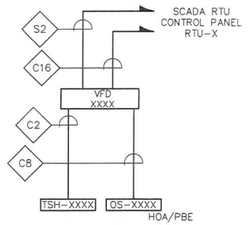
SCALE

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO. E-0.16

5/29/2019 9:24 AM W:\ENGR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC DIAGRAMS AND DETAILS.DWG (BETA STB BW STB)

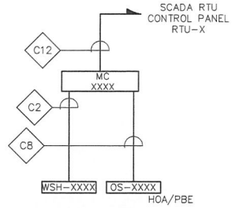


CONTROL BLOCK WIRING DIAGRAM SLUDGE PUMPS & FINAL SCUM PUMPS

NOT TO SCALE

TYPICAL FOR:

- VFD-2201/OS-2201/TSH-2201 – RTU-2
- VFD-2202/OS-2202/TSH-2202 – RTU-2
- VFD-2203/OS-2203/TSH-2203 – RTU-2
- VFD-2204/OS-2204/TSH-2204 – RTU-2
- VFD-4111/OS-4111/TSH-4111 – RTU-4A
- VFD-4112/OS-4112/TSH-4112 – RTU-4A
- VFD-4113/OS-4113/TSH-4113 – RTU-4A
- VFD-4121/OS-4121/TSH-4121 – RTU-4A
- VFD-4122/OS-4122/TSH-4122 – RTU-4A
- VFD-4131/OS-4131/TSH-4131 – RTU-4A
- VFD-4211/OS-4211/TSH-4211 – RTU-4B
- VFD-4212/OS-4212/TSH-4212 – RTU-4B
- VFD-4213/OS-4213/TSH-4213 – RTU-4B
- VFD-4221/OS-4221/TSH-4221 – RTU-4B
- VFD-4222/OS-4222/TSH-4222 – RTU-4B
- VFD-4231/OS-4231/TSH-4231 – RTU-4B

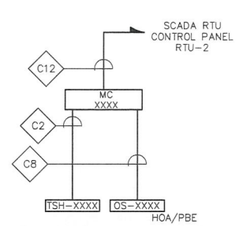


CONTROL BLOCK WIRING DIAGRAM CLARIFIER DRIVES

NOT TO SCALE

TYPICAL FOR:

- MC-2101/OS-2101/WSH-2101 – RTU-2
- MC-2102/OS-2102/WSH-2102 – RTU-2
- MC-2103/OS-2103/WSH-2103 – RTU-2
- MC-2104/OS-2104/WSH-2104 – RTU-2
- MC-4101/OS-4101/WSH-4101 – RTU-4A
- MC-4102/OS-4102/WSH-4102 – RTU-4A
- MC-4201/OS-4201/WSH-4201 – RTU-4B
- MC-4202/OS-4202/WSH-4202 – RTU-4B

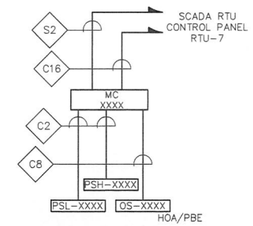


CONTROL BLOCK WIRING DIAGRAM PRIMARY SCUM PUMPS

NOT TO SCALE

TYPICAL FOR:

- MC-2301/OS-2301/TSH-2301
- MC-2302/OS-2302/TSH-2302

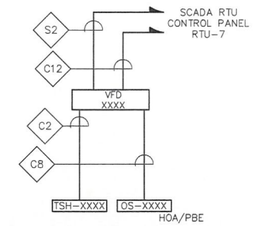


CONTROL BLOCK WIRING DIAGRAM GRIT BLOWERS

NOT TO SCALE

TYPICAL FOR:

- MC-1201/OS-1201/PSL-1201/PSH-1201
- MC-1202/OS-1202/PSL-1202/PSH-1202

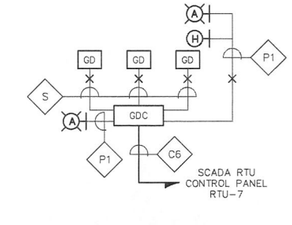


CONTROL BLOCK WIRING DIAGRAM ODOR CONTROL BLOWER

NOT TO SCALE

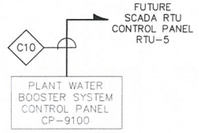
TYPICAL FOR:

- VFD-8101/OS-8101/TSH-8101



CONTROL BLOCK WIRING DIAGRAM GAS DETECTION SYSTEM

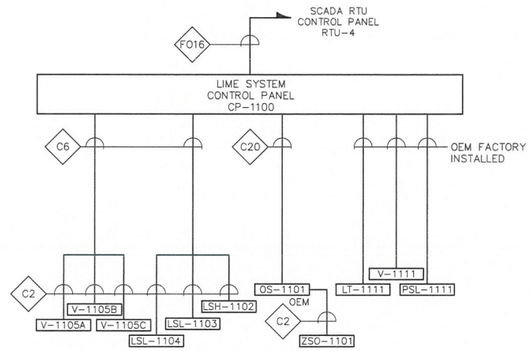
NOT TO SCALE



CONTROL BLOCK WIRING DIAGRAM PLANT WATER BOOSTER SYSTEM

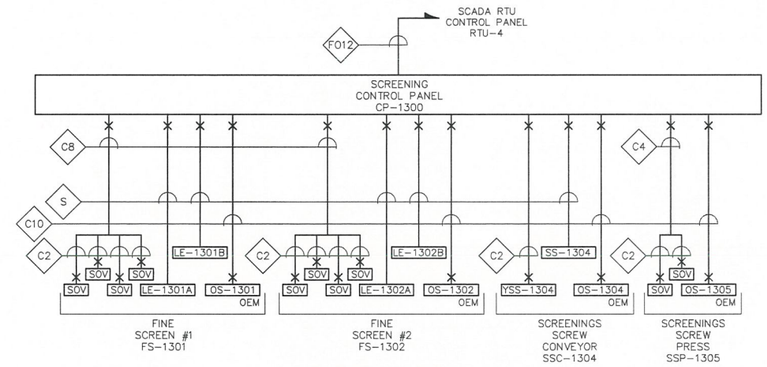
NOT TO SCALE

PRIMARY ~~M~~ AND BOOSTER SYSTEMS



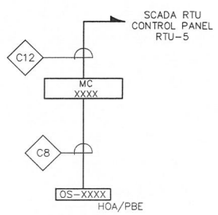
CONTROL BLOCK WIRING DIAGRAM LIME SYSTEM

NOT TO SCALE



CONTROL BLOCK WIRING DIAGRAM HEAD WORKS SCREENINGS

NOT TO SCALE

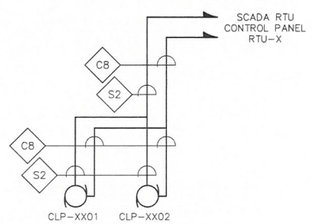


CONTROL BLOCK WIRING DIAGRAM SANITARY WASTE PUMPS

NOT TO SCALE

TYPICAL FOR:

- MC-9201/OS-9201
- MC-9202/OS-9202

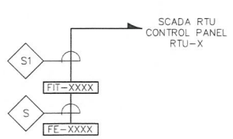


CONTROL BLOCK WIRING DIAGRAM CHEMICAL FEED PUMPS

NOT TO SCALE

TYPICAL FOR:

- CLP-5201/CLP-5202 – RTU-5
- LLP-5401/CLP-5402 – RTU-5

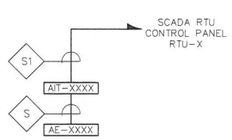


CONTROL BLOCK WIRING DIAGRAM FLOW METERS

NOT TO SCALE

TYPICAL FOR:

- FE-2205/FIT-2205 – RTU-2
- FE-4151/FIT-4151 – RTU-4A
- FE-4161/FIT-4161 – RTU-4A
- FE-4251/FIT-4251 – RTU-4B
- FE-4261/FIT-4261 – RTU-4B
- FE-5502/FIT-5502 – RTU-5
- FE-5503/FIT-5503 – RTU-5

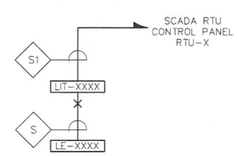


CONTROL BLOCK WIRING DIAGRAM ANALYZERS

NOT TO SCALE

TYPICAL FOR:

- AE-5504/AIT-5504 – RTU-5
- AE-5505/AIT-5505 – RTU-5

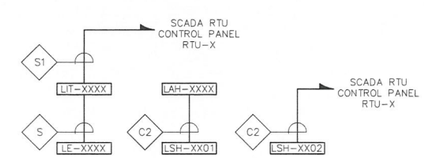


CONTROL BLOCK WIRING DIAGRAM SCUM & SANITARY WELLS ULTRASONIC LEVEL TRANSMITTERS

NOT TO SCALE

TYPICAL FOR:

- LE-2303/LIT-2303 – RTU-2
- LE-2304/LIT-2304 – RTU-2
- LE-4132/LIT-4132 – RTU-4A
- LE-4232/LIT-4232 – RTU-4B
- LE-9203/LIT-9203 – RTU-5



CONTROL BLOCK WIRING DIAGRAM CHEMICAL TANKS LEVEL MONITORING

NOT TO SCALE

TYPICAL FOR:

- LE-5101/LIT-5101/LSH-5101/LAH-5101/LSH-5102 – RTU-5
- LE-5301/LIT-5301/LSH-5301/LAH-5301/LSH-5302 – RTU-5

PREPARED BY

BETA
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REGISTERED PROFESSIONAL

NOT FOR CONSTRUCTION (CONCEPTUAL)

SUBCONSULTANT

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web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

ELECTRICAL CONTROL BLOCK WIRING DIAGRAMS

NO.	REVISIONS	DATE

DRAWN BY:	RB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

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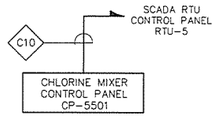
For Review Only

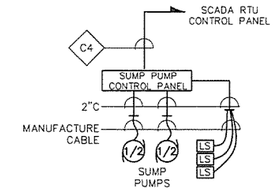
SHEET NO.

E-0.17

5.29.2020 2:35 PM W:\YEAR 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC DIAGRAMS AND DETAILS.DWG (BETA STB BW.STB)



CONTROL BLOCK WIRING DIAGRAM
CHLORINE MIXER
NOT TO SCALE



TYPICAL SUMP PUMP BLOCK WIRING DIAGRAM
NOT TO SCALE

PREPARED BY

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CONSTRUCTION
(CONCEPTUAL)

SUBCONSULTANT

SAR
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Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

ELECTRICAL
CONTROL BLOCK
WIRING
DIAGRAMS

NO	REVISIONS	DATE

DRAWN BY:	RB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

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UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

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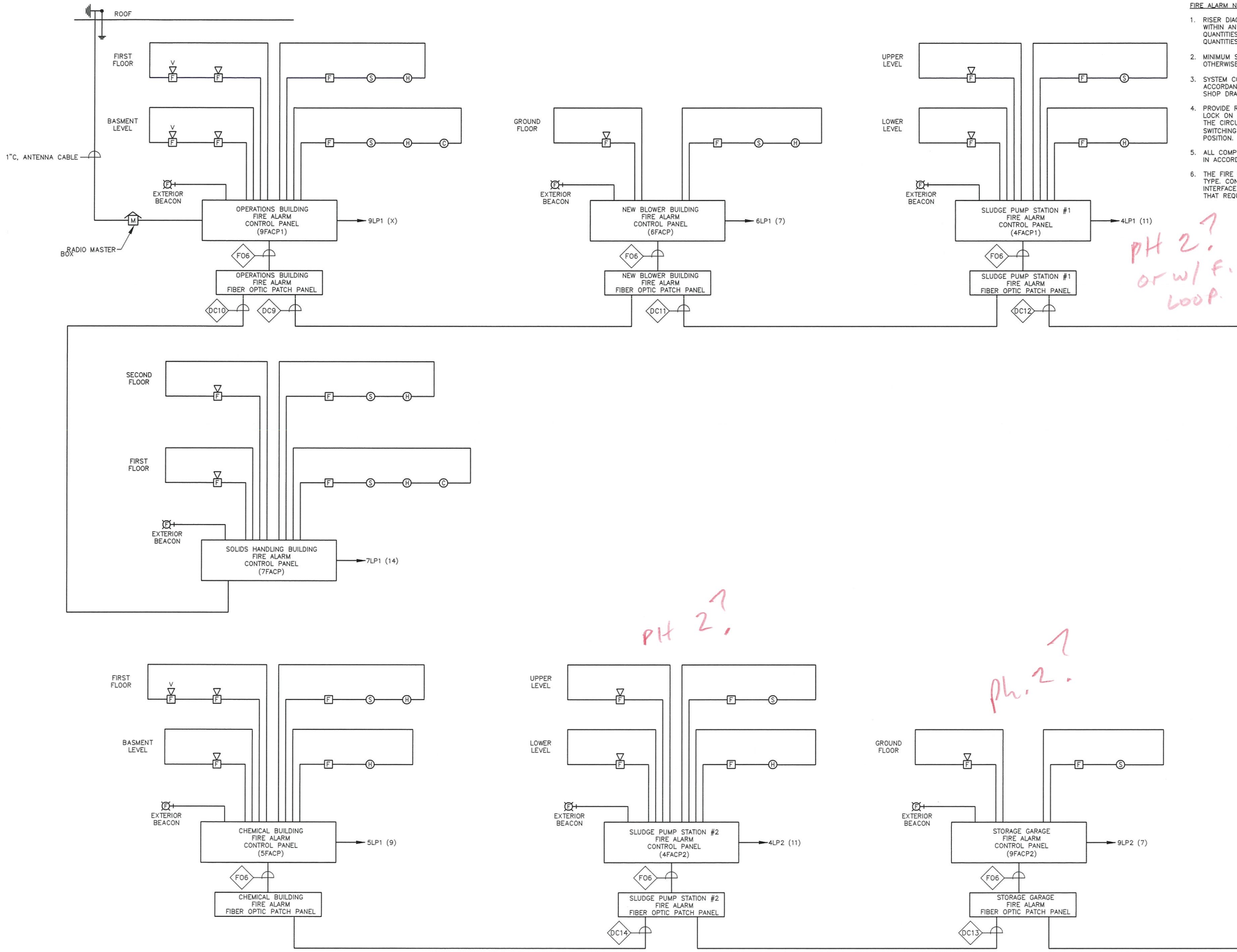
E-0.18

5/29/2020 2:36 PM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC DIAGRAMS AND DETAILS.DWG (BETA STB BW STB)



FIRE ALARM RISER DIAGRAM

NOT TO SCALE

FIRE ALARM NOTES:

1. RISER DIAGRAM ONLY REPRESENTS TYPE OF DEVICES WITHIN AN AREA AND DOES NOT REPRESENT ACTUAL QUANTITIES. REFER TO PLAN DRAWINGS FOR EXACT QUANTITIES AND LOCATIONS OF DEVICES.
2. MINIMUM SIZE CONDUIT SHALL BE 3/4" UNLESS NOTED OTHERWISE.
3. SYSTEM CONDUIT/CABLING SHALL BE INSTALLED IN ACCORDANCE WITH EQUIPMENT SUPPLIERS APPROVED SHOP DRAWINGS AND WIRING DIAGRAMS.
4. PROVIDE RED COLORED CIRCUIT BREAKER HANDLE LOCK ON POWER CIRCUIT. HANDLE LOCK SHALL ALLOW THE CIRCUIT BREAKER TO TRIP, BUT PREVENT SWITCHING OF THE CIRCUIT BREAKER TO THE "OFF" POSITION.
5. ALL COMPONENTS OF THE SYSTEM SHALL BE MOUNTED IN ACCORDANCE WITH ADA REQUIREMENTS.
6. THE FIRE ALARM SYSTEM SHALL BE ADDRESSABLE TYPE. CONTRACTOR TO PROVIDE THE NECESSARY INTERFACE MODULES FOR THE FIRE ALARM DEVICES THAT REQUIRES THEM.

PREPARED BY

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SUBCONSULTANT

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PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

ELECTRICAL FIRE ALARM RISER DIAGRAM

NO.	REVISIONS	DATE

DRAWN BY:	RB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

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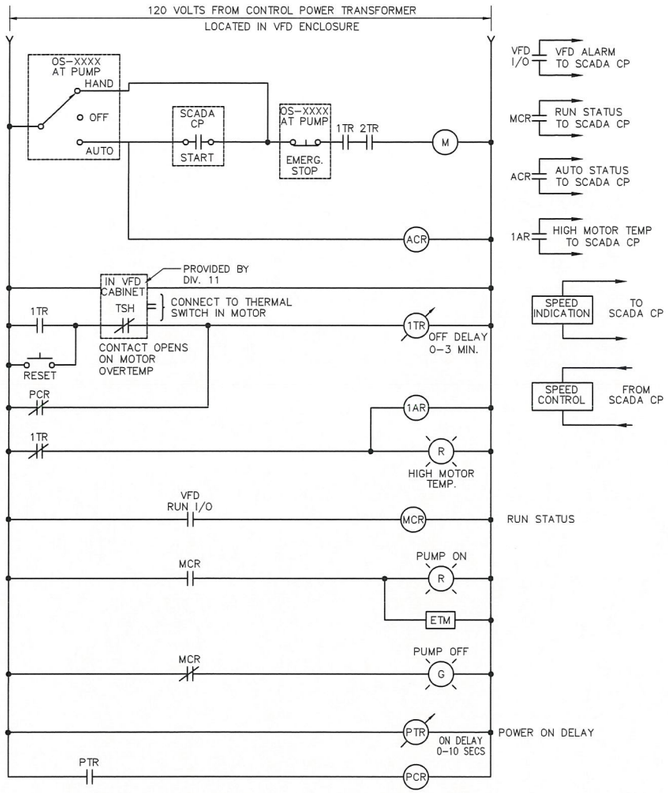
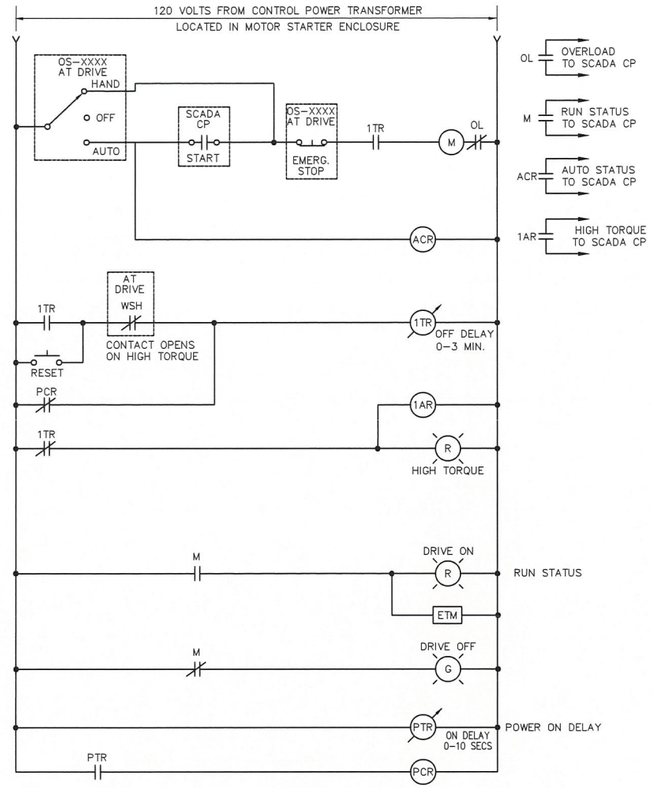
SHEET NO. E-0.19

5/29/2020 9:25 AM W:\YEAR 2018\18009.00 TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC DIAGRAMS AND DETAILS.DWG (BETA STB BW.STB)



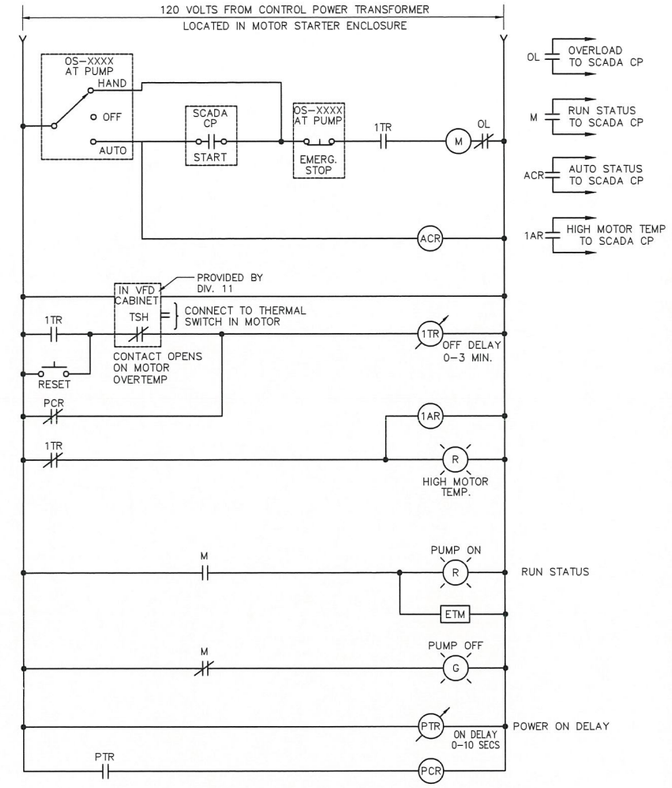
MOTOR CONTROL WIRING DIAGRAM
PRIMARY SLUDGE, WAS, RAS, & FINAL SCUM PUMPS
NOT TO SCALE

PH 2



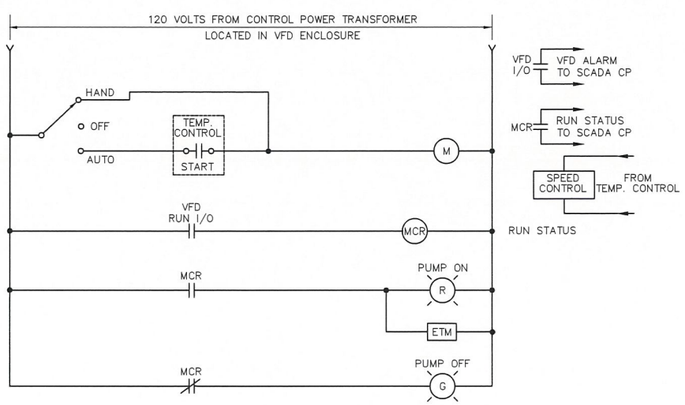
MOTOR CONTROL WIRING DIAGRAM
PRIMARY AND FINAL CLARIFIER DRIVES
NOT TO SCALE

PH 2

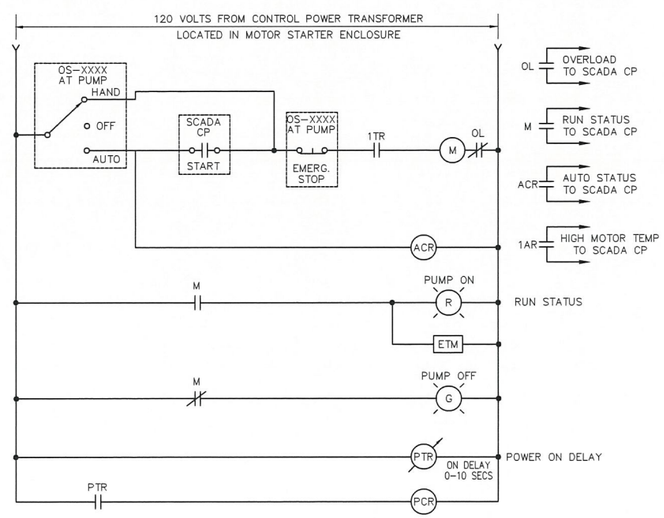


MOTOR CONTROL WIRING DIAGRAM
PRIMARY SCUM PUMPS
NOT TO SCALE

PRI. SLUDGE PUMPS
ON TIMERS.
(RUN TIME
- MIN ON
- MIN OFF
SEQUENTIAL
OPERATION
1-2-3-4.



MOTOR CONTROL WIRING DIAGRAM
HOT WATER PUMPS
NOT TO SCALE



MOTOR CONTROL WIRING DIAGRAM
SANITARY WASTE PUMPS
NOT TO SCALE

PREPARED BY

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SUBCONSULTANT

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PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

ELECTRICAL MOTOR CONTROL WIRING DIAGRAMS

NO.	REVISIONS	DATE

DRAWN BY:	RB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

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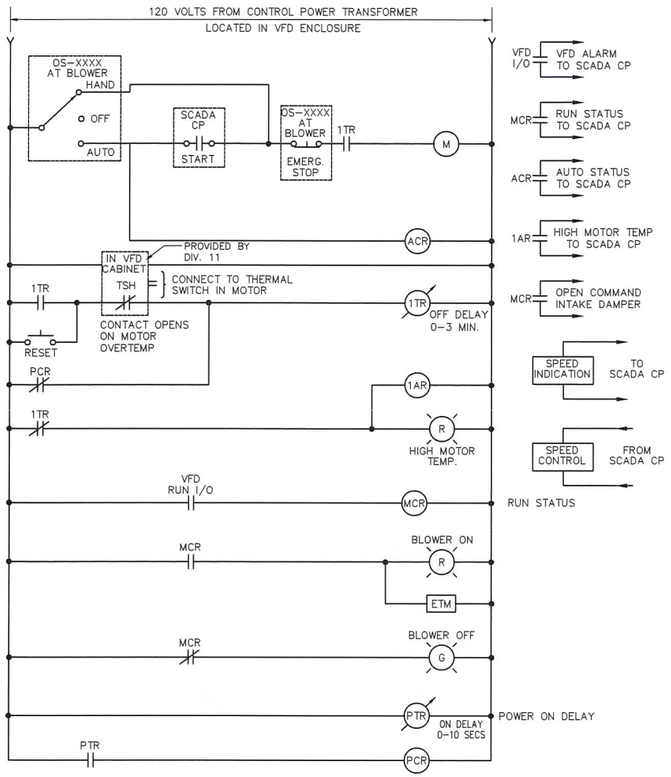
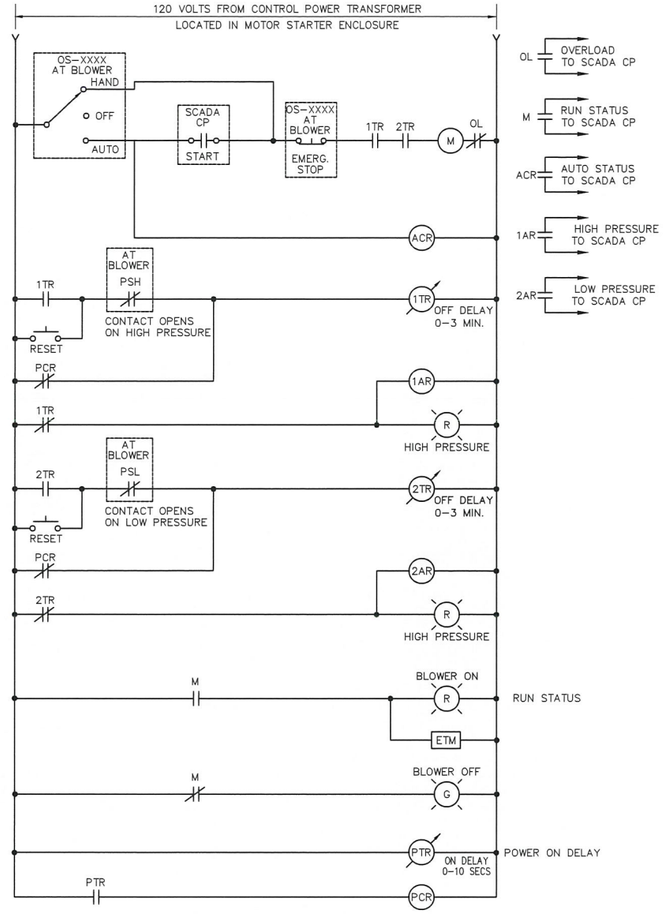


MOTOR CONTROL WIRING DIAGRAM
ODOR CONTROL BLOWER
NOT TO SCALE

TYP FOR 3 ?



MOTOR CONTROL WIRING DIAGRAM
GRIT BLOWERS
NOT TO SCALE

PREPARED BY

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SUBCONSULTANT

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PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

ELECTRICAL MOTOR CONTROL WIRING DIAGRAMS

NO.	REVISIONS	DATE

DRAWN BY:	RB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

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For Review Only

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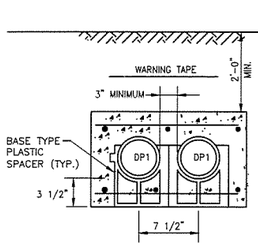
5/29/2020 9:25 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC DIAGRAMS AND DETAILS.DWG (BETA STB BW.STB)

POWER DUCT / CABLE SCHEDULE

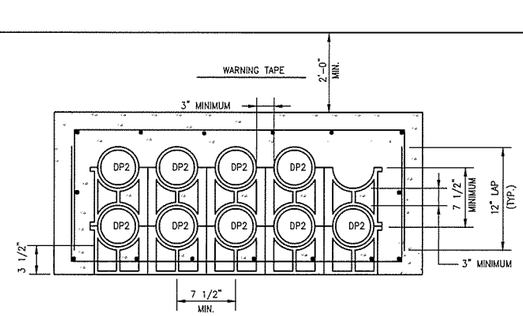
DUCT NO.	SIZE	CONDUCTORS	FROM	TO
DP1	4"	(3) #2 COPPER 15KV CABLE	UTILITY POLE	UTILITY TRANSFORMER
DP2	4"	(4) 600kcmiL	UTILITY TRANSFOMER	MCB
DP3	4"	(4) 500kcmiL, #2/0 GND	GENERATOR	GSWBD1
DP4	1"	(6) #12, #12GND	6LP1	GENERATOR AUXILLARY SYSTEMS.
DP5	1"	(20) #14	GENERATOR	SCADA CONTROL PANEL RTU-3
DP6	1"	RS-485 CABLE	GENERATOR MASTER CONTROL PANEL	GENERATOR CONTROL PANEL
DP7	1"	RS-485 CABLE	GENERATOR CONTROL PANEL	GENERATOR CONTROL PANEL
DP8	4"	(4) 350kcmiL, #1 GND	MSWBD1	2DP1
DP9	5"	(4) 600kcmiL, #1/0 GND	MSWBD1	7MCB
DP10	5"	(4) 600kcmiL, #1/0 GND	MSWBD1	4DP1
DP11	5"	(4) 600kcmiL, #1/0 GND	MSWBD1	4DP2
DP12	3"	(4) 1/0, #6 GND	4DP1	9DP1
DP13	3"	(4) 1/0, #6 GND	4DP2	5DP1

COMMUNICATION DUCT / CABLE SCHEDULE

DUCT NO.	SIZE	CONDUCTORS	FROM	TO
DC1	3"	FIBER OPTIC CABLE (SCADA)	UTILITY POLE	ADMINISTRATION BLDG. FIBER PATCH PANEL
DC2	3"	PULL STRING	UTILITY POLE	TELE/COM DEMARK BACKBOARD
DC3	3"	FIBER OPTIC CABLE (SCADA)	ADMINISTRATION BLDG. FIBER PATCH PANEL	BLOWER BLDG. FIBER PATCH PANEL
DC4	3"	FIBER OPTIC CABLE (SCADA)	ADMINISTRATION BLDG. FIBER PATCH PANEL	SLUDGE HANDLING BLDG. FIBER PATCH PANEL
DC5	3"	FIBER OPTIC CABLE (SCADA)	BLOWER BLDG. FIBER PATCH PANEL	SLUDGE PUMPING STATION #1 FIBER PATCH PANEL
DC6	3"	FIBER OPTIC CABLE (SCADA)	SLUDGE PUMPING STATION #1 FIBER PATCH PANEL	STORAGE GARAGE FIBER PATCH PANEL
DC7	3"	FIBER OPTIC CABLE (SCADA)	STORAGE GARAGE FIBER PATCH PANEL	SLUDGE PUMPING STATION #2 FIBER PATCH PANEL
DC8	3"	FIBER OPTIC CABLE (SCADA)	SLUDGE PUMPING STATION #2 FIBER PATCH PANEL	CHEMICAL BLDG. FIBER PATCH PANEL
DC9	3"	FIBER OPTIC CABLE (FIRE ALARM)	ADMINISTRATION BLDG. FIBER PATCH PANEL	BLOWER BLDG. FIBER PATCH PANEL
DC10	3"	FIBER OPTIC CABLE (FIRE ALARM)	ADMINISTRATION BLDG. FIBER PATCH PANEL	SLUDGE HANDLING BLDG. FIBER PATCH PANEL
DC11	3"	FIBER OPTIC CABLE (FIRE ALARM)	BLOWER BLDG. FIBER PATCH PANEL	SLUDGE PUMPING STATION #1 FIBER PATCH PANEL
DC12	3"	FIBER OPTIC CABLE (FIRE ALARM)	SLUDGE PUMPING STATION #1 FIBER PATCH PANEL	STORAGE GARAGE FIBER PATCH PANEL
DC13	3"	FIBER OPTIC CABLE (FIRE ALARM)	STORAGE GARAGE FIBER PATCH PANEL	SLUDGE PUMPING STATION #2 FIBER PATCH PANEL
DC14	3"	FIBER OPTIC CABLE (FIRE ALARM)	SLUDGE PUMPING STATION #2 FIBER PATCH PANEL	CHEMICAL BLDG. FIBER PATCH PANEL



SECTION A-A



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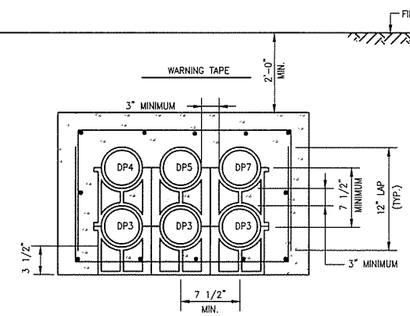

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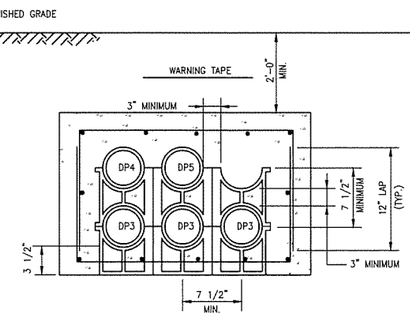

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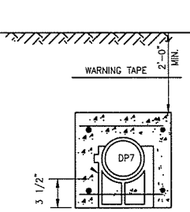

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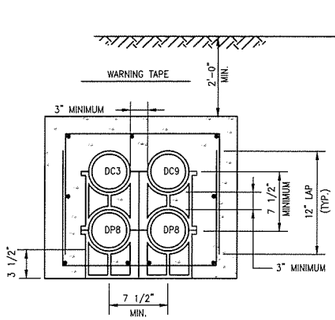

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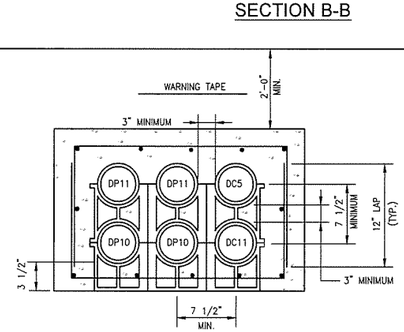

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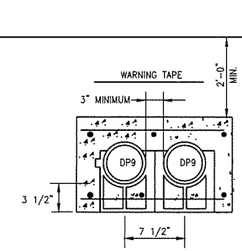

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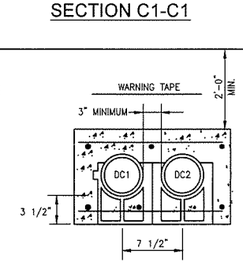

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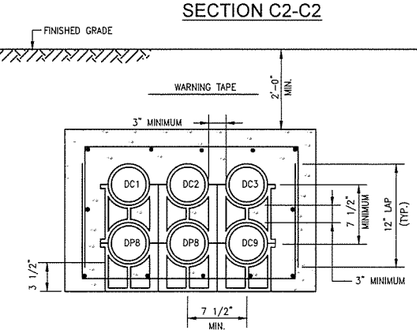
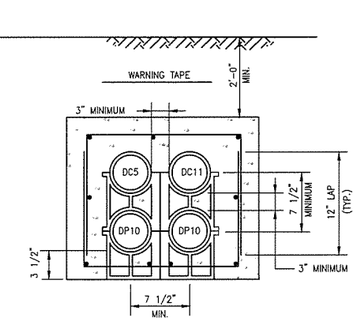
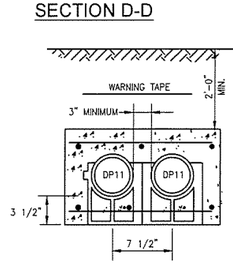


SECTION H-H



SECTION I-I



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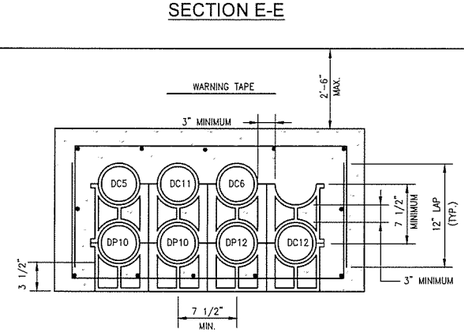

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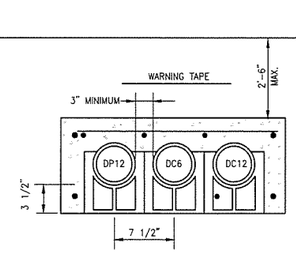

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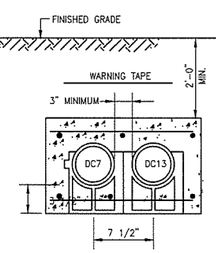

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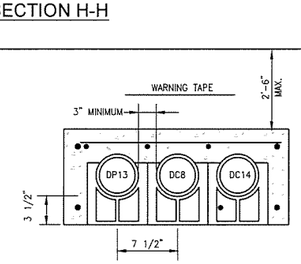

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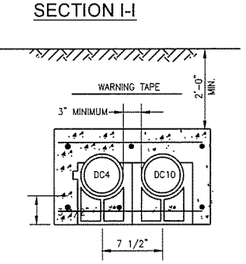

SECTION O-O

NOTES:

1. BACKFILL DUCT BANK IN LAYERS AND MANUALLY TAMP OR "PUDDLE" CONCRETE FILL. PROVIDE RED DUCT BANK MARKER TAPES, READING "CAUTION – ELECTRICAL LINES BELOW", OVER ENTIRE LENGTH OF DUCTLINE. LOCATE TAPES 12 INCHES BELOW GRADE. PROVIDE A TAPE FOR EVERY 12 INCHES OF WIDTH OF DUCTLINE.

2. A MINIMUM OF 12" SEPARATION SHALL BE KEPT BETWEEN DUCT BANK SECTIONS WITHIN SAME TRENCH.

DUCTBANK SECTIONS

NO SCALE

PREPARED BY

BETA
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REGISTERED PROFESSIONAL

NOT FOR CONSTRUCTION (CONCEPTUAL)

SUBCONSULTANT

SAR ENGINEERING, INC.
Mechanical/Electrical Engineers
150 Grossman Drive, Suite 309
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617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

ELECTRICAL DUCTBANK DETAILS

NO.	REVISIONS	DATE

DRAWN BY:	RB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

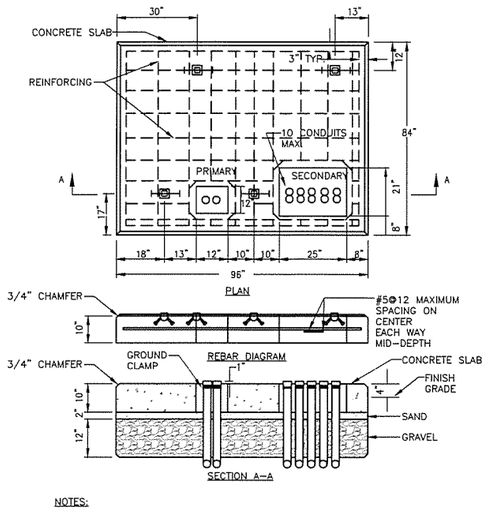
SCALE

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO. E-0.22

4/24/2020 9:25 AM W:\YEAR 2019\6050.00 TAUNTON WWTF UPGRADE\ELECTRICAL DEPARTMENT\6009.00 ELEC DIAGRAMS AND DETAILS.DWG (BETA STB BW.STB)

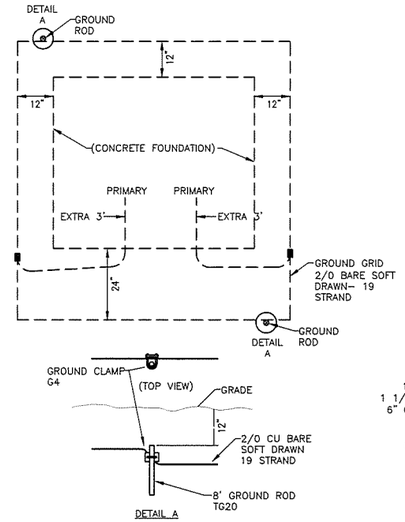


NOTES:

1. SEAL SECONDARY CONDUITS WITH EXPANDING FOAM AND GROUT PRIMARY AND SECONDARY CONDUIT OPENINGS ON PAD.

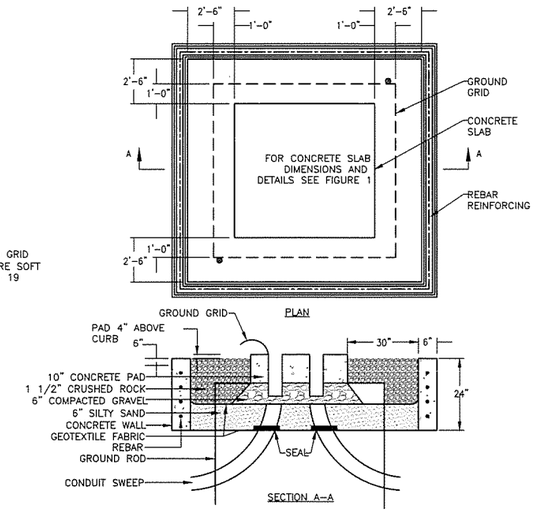
TRANSFORMER PAD

NO SCALE



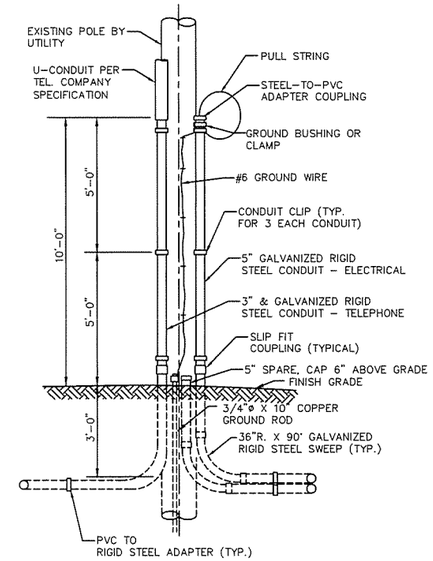
PAD MOUNTED TRANSFORMER GROUNDING PLAN

NO SCALE



TRANSFORMER OIL CONTAINMENT CURB

NO SCALE



UTILITY POLE SERVICE RISER DETAIL

NOT TO SCALE

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SUBCONSULTANT

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web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

ELECTRICAL SITE DETAILS

NO.	REVISIONS	DATE

DRAWN BY:	RB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

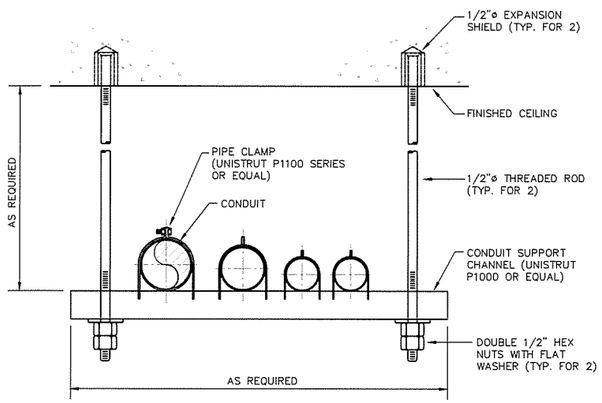
SHEET NO.

E-0.23

5/29/2020 9:36 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC DIAGRAMS AND DETAILS.DWG (BETA STB BW.STB)

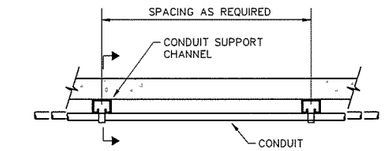
GENERAL NOTES:

1. ALL MOUNTING BRACKETS, SUPPORTS, FASTENERS, AND ECT. WITHIN THE WET WELL SHALL BE STAINLESS STEEL.

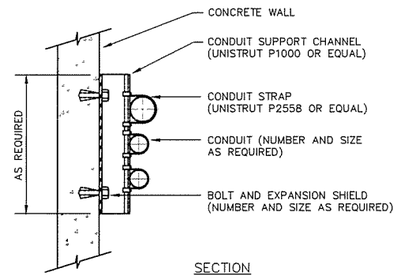


TYPICAL CONDUIT CEILING SUPPORT

NOT TO SCALE



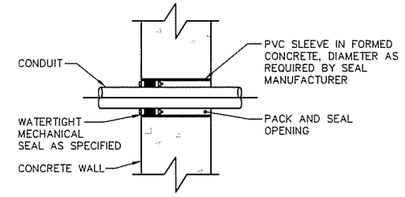
PLAN



SECTION

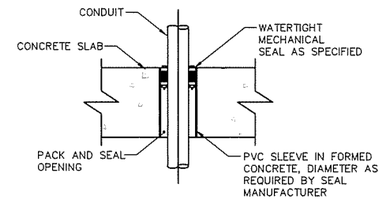
TYPICAL CONDUIT WALL SUPPORT

NOT TO SCALE



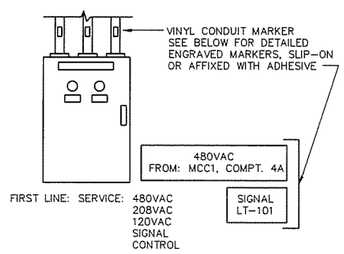
CONDUIT PENETRATION THROUGH CONCRETE WALL

NOT TO SCALE



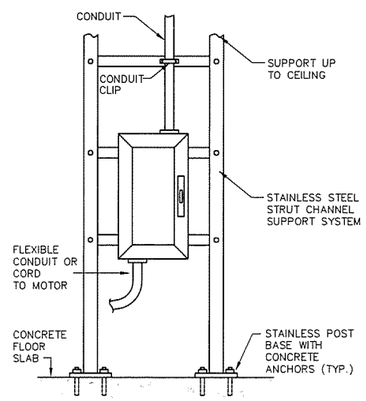
CONDUIT PENETRATION PASSING THROUGH CONCRETE SLAB

NOT TO SCALE



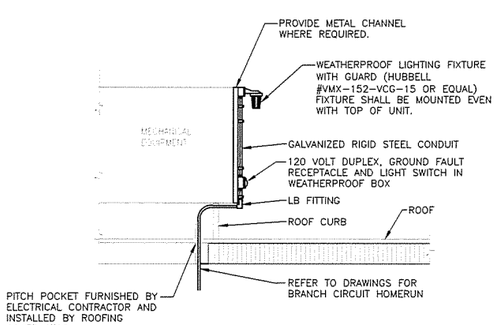
CONDUIT MARKER DETAIL

NOT TO SCALE



ELECTRICAL EQUIPMENT STANCHION MOUNTING DETAIL

NOT TO SCALE



ROOFTOP LIGHT AND RECEPTACLE DETAIL

NOT TO SCALE

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SUBCONSULTANT

SAR ENGINEERING, INC.
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web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

ELECTRICAL DETAILS

NO.	REVISIONS	DATE

DRAWN BY:	RB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

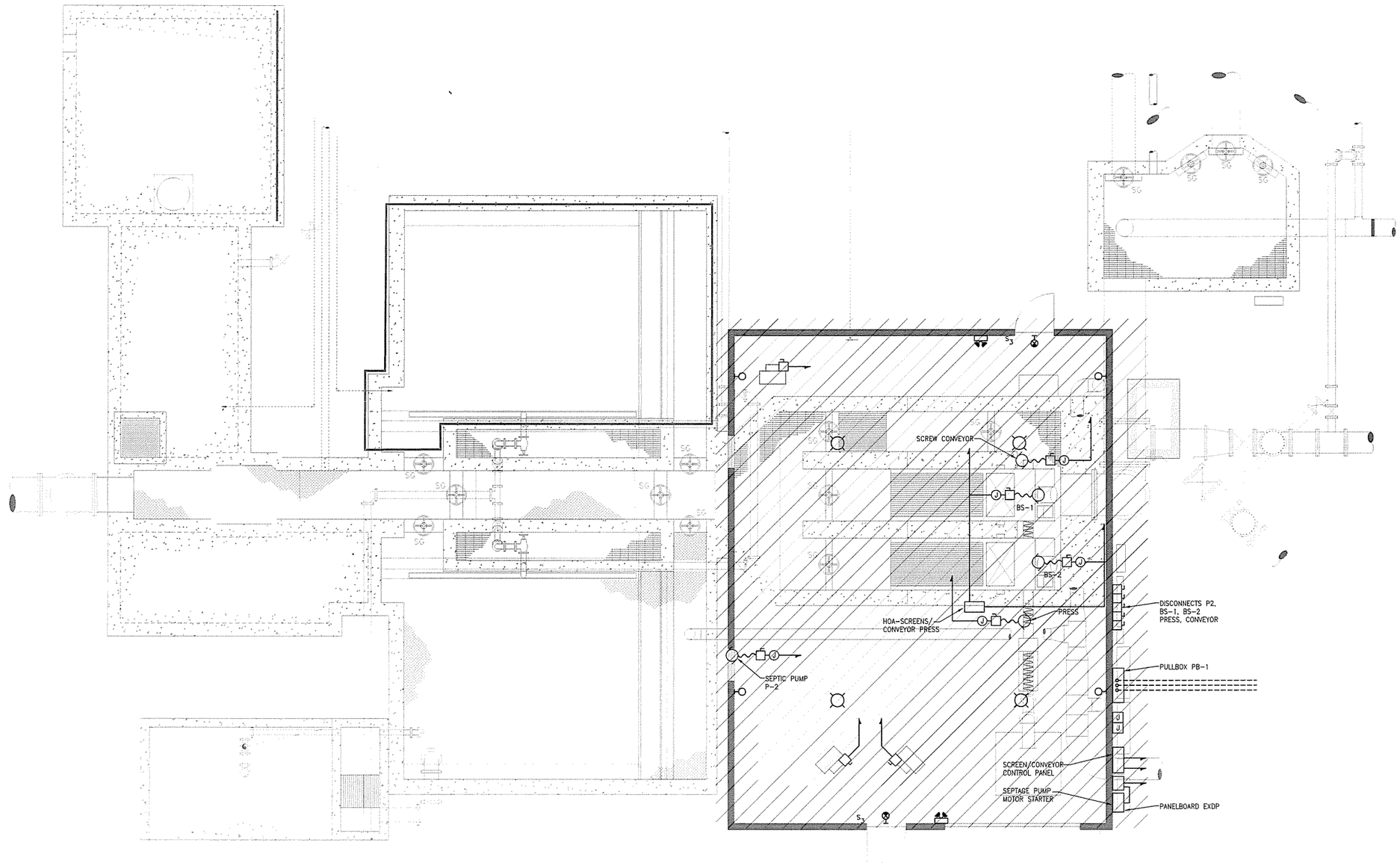
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

E-0.24

5/29/2020 9:26 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC DIAGRAMS AND DETAILS.DWG (BETA STB BW.STB)



PLAN

SCALE: 1/4"= 1'-0"

PREPARED BY

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www.BETA-Inc.com

REGISTERED PROFESSIONAL

NOT FOR
CONSTRUCTION
(CONCEPTUAL)

SUBCONSULTANT

SAR
ENGINEERING, INC.

Mechanical/Electrical Engineers
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Braintree, Massachusetts 02184
617 328-9215
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PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Existing Conditions Headworks Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

AS SHOWN

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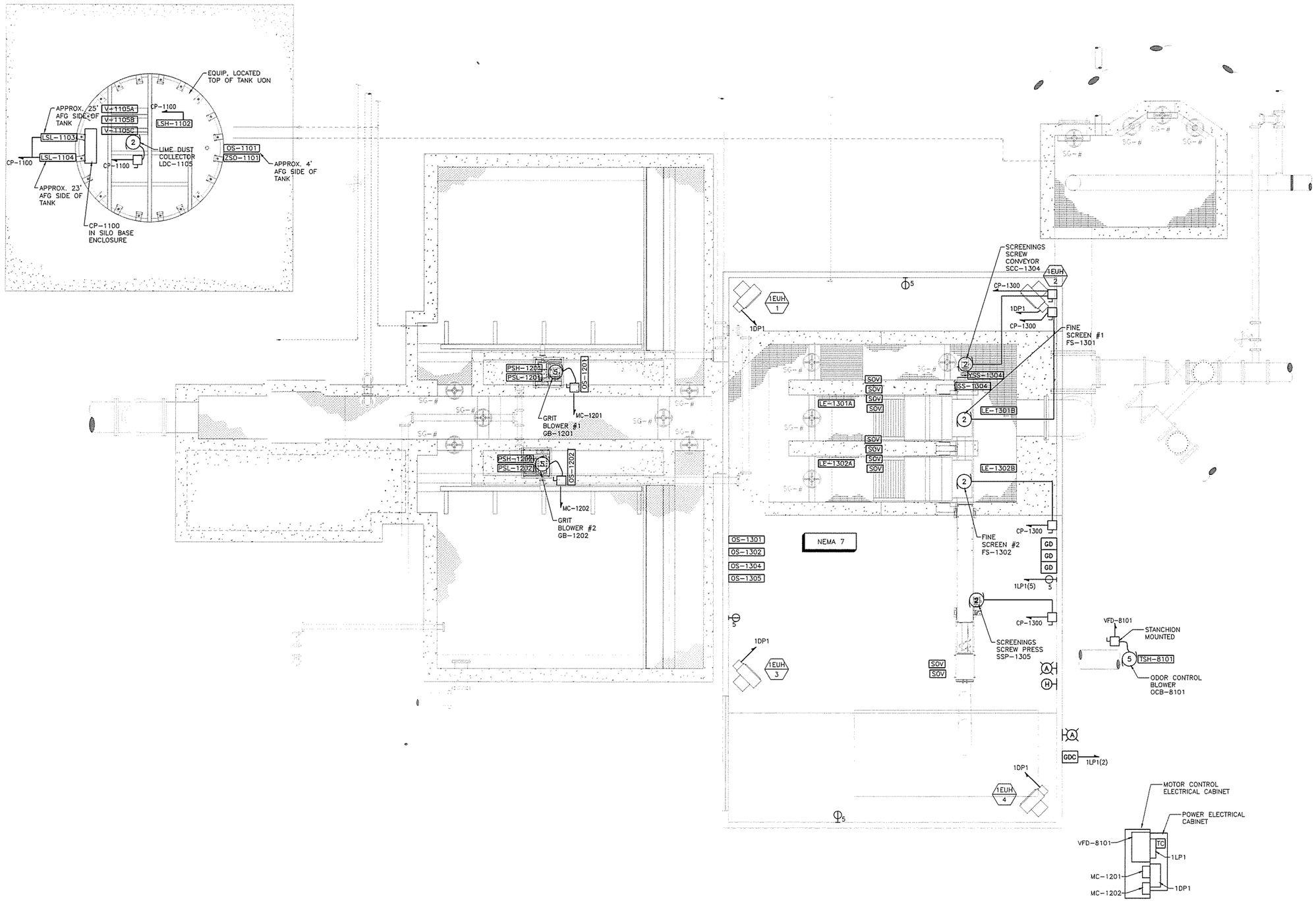
For Review Only

SHEET NO.

E-1.1

5/20/2020 10:41 AM WYEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC HEADWORKS.DWG (BETA STB BW.STB)



PLAN
SCALE: 1/4"= 1'-0"

PREPARED BY

BETA
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REGISTERED PROFESSIONAL

NOT FOR CONSTRUCTION (CONCEPTUAL)

SUBCONSULTANT

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Mechanical/Electrical Engineers
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617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Headworks Power Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

AS SHOWN

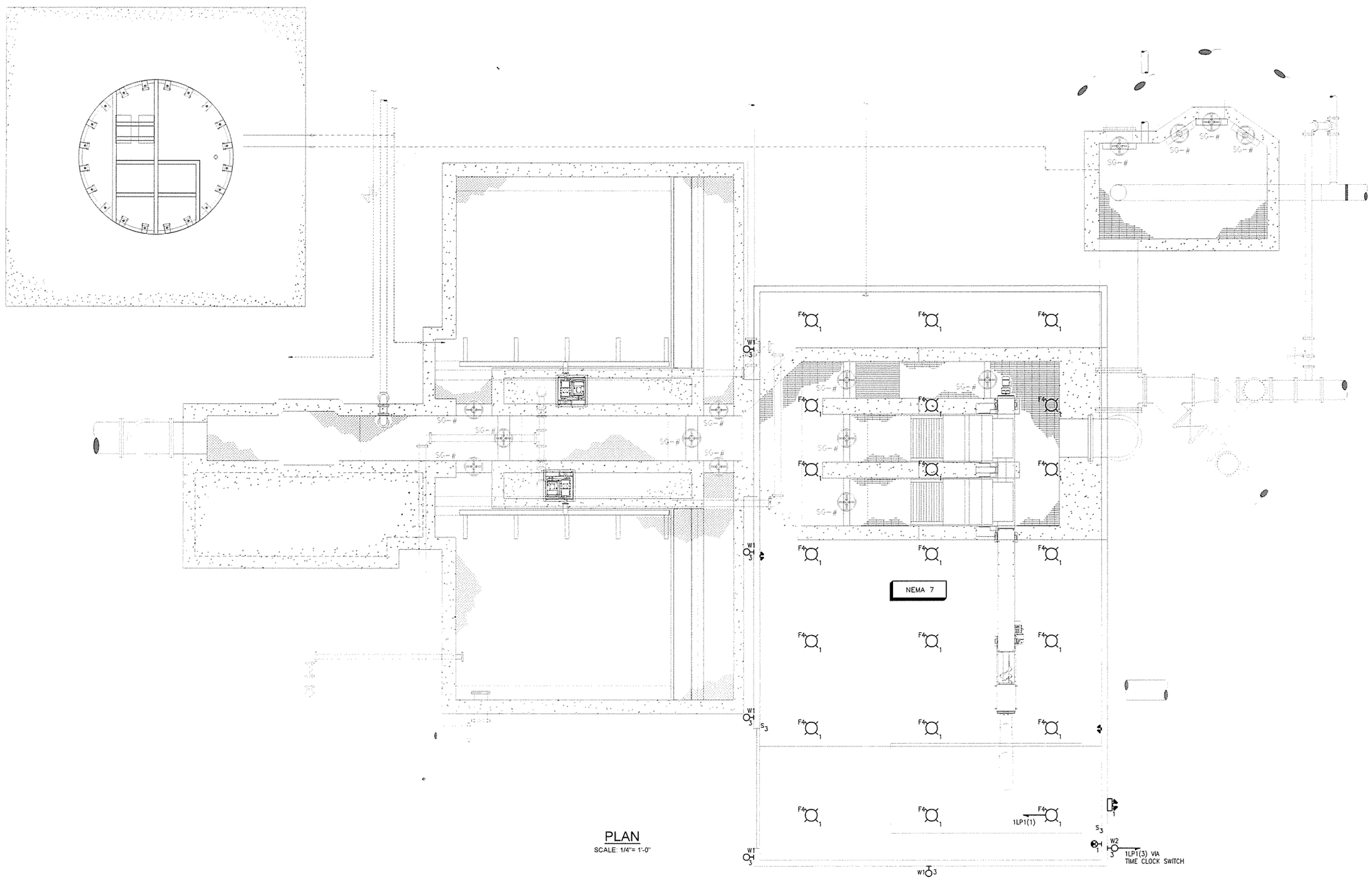
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

E-1.2

5/29/2020 10:41 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC HEADWORKS DWG (BETA STB BW STB)



PLAN
SCALE: 1/4"= 1'-0"

PREPARED BY

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REGISTERED PROFESSIONAL

NOT FOR CONSTRUCTION (CONCEPTUAL)

SUBCONSULTANT

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Mechanical/Electrical Engineers
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617 328-9215
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PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Headworks Lighting Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

AS SHOWN

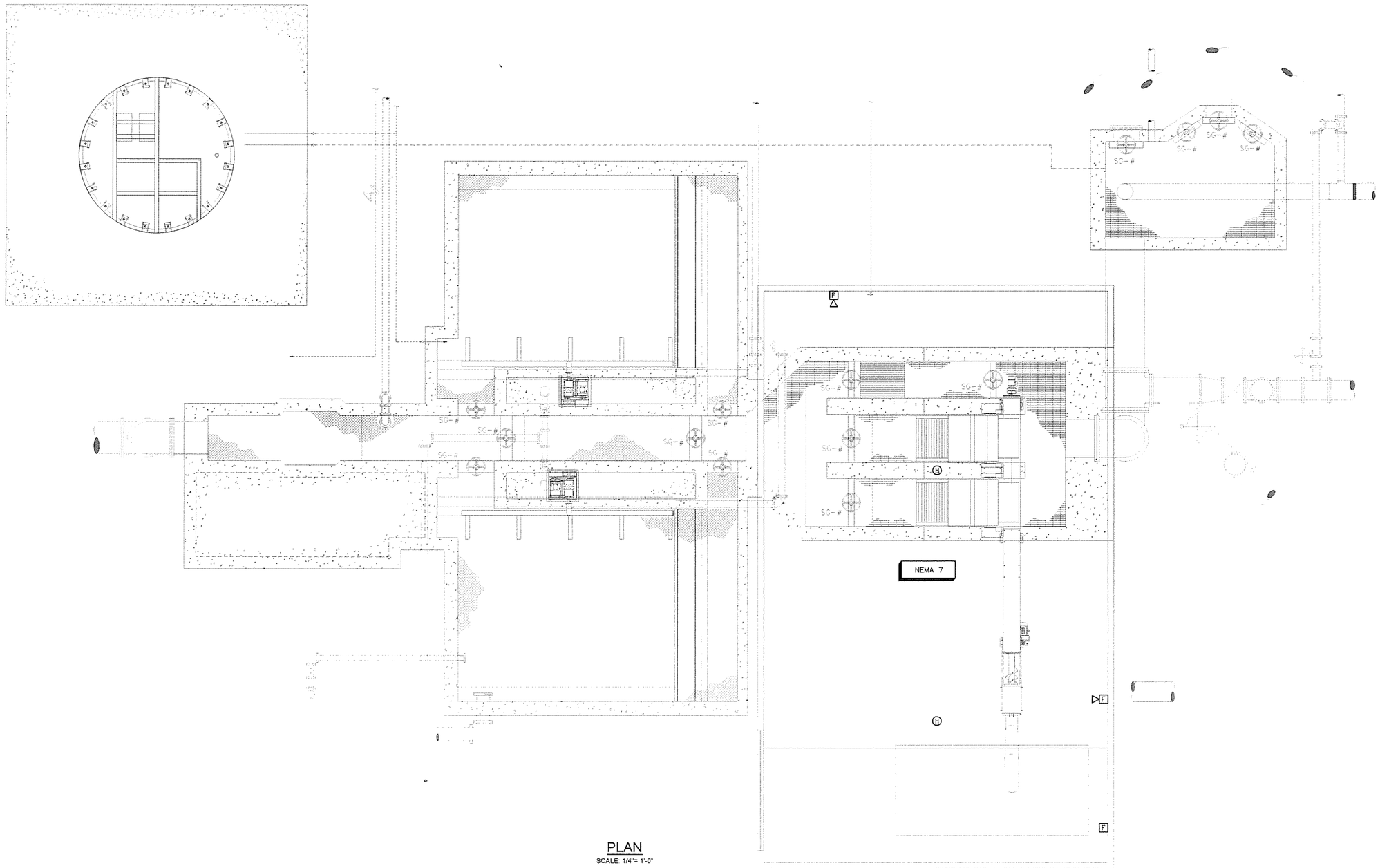
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

E-1.3

5/26/2021 10:41 AM W:\EAP - 2018\18009.00 - TAUNTON WWTF UPGRADE\ELECTRICAL DEPARTMENT\18009.00 ELEC HEADWORKS.DWG (BETA STB BW.STB)



PLAN
SCALE: 1/4"= 1'-0"

PREPARED BY

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REGISTERED PROFESSIONAL

NOT FOR CONSTRUCTION (CONCEPTUAL)

SUBCONSULTANT

SAR ENGINEERING, INC.
Mechanical/Electrical Engineers
150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical
Headworks
Fire Alarm Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

AS SHOWN

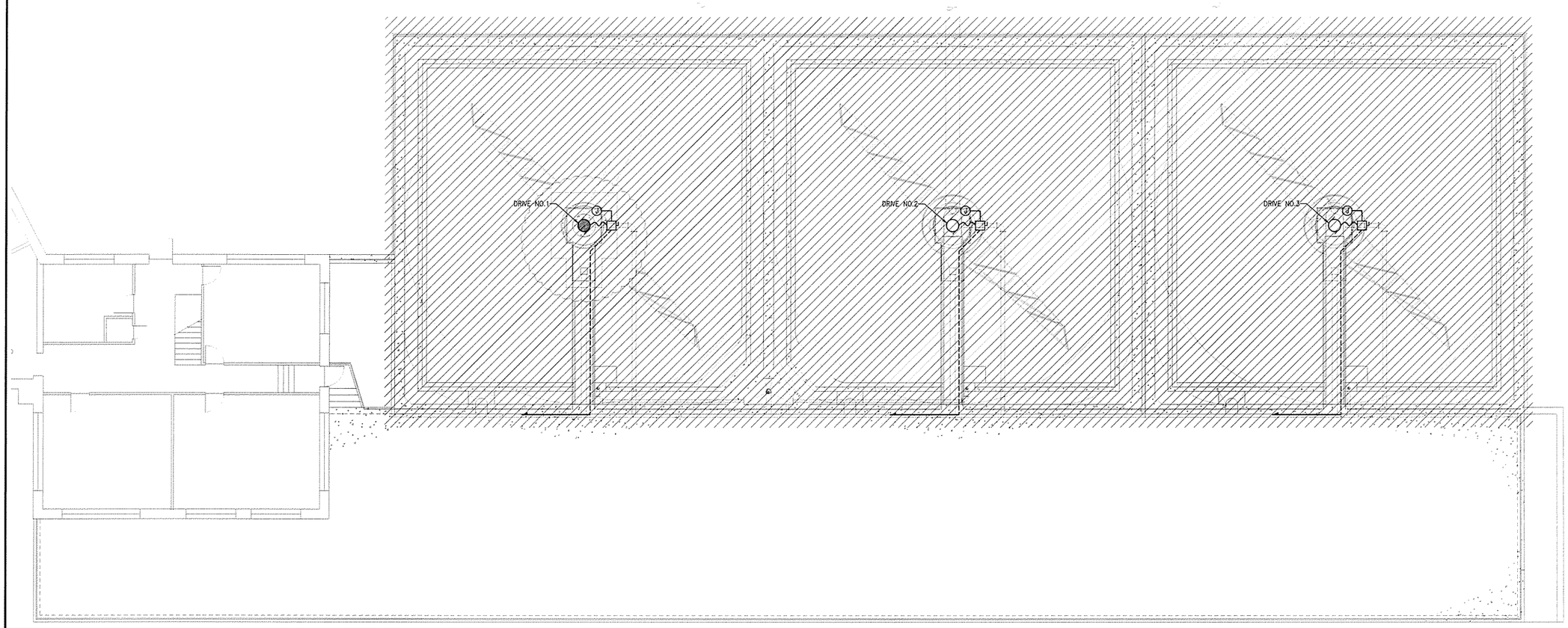
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

E-1.4

5/29/2020 10:42 AM W:\FEAR 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC HEADWORKS.DWG (BETA STB BW STB)



PLAN
SCALE: 1/8"= 1'-0"

PREPARED BY

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REGISTERED PROFESSIONAL

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SUBCONSULTANT

SAR ENGINEERING, INC.

Mechanical/Electrical Engineers
150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Demolition Primary Clarifiers Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

AS SHOWN

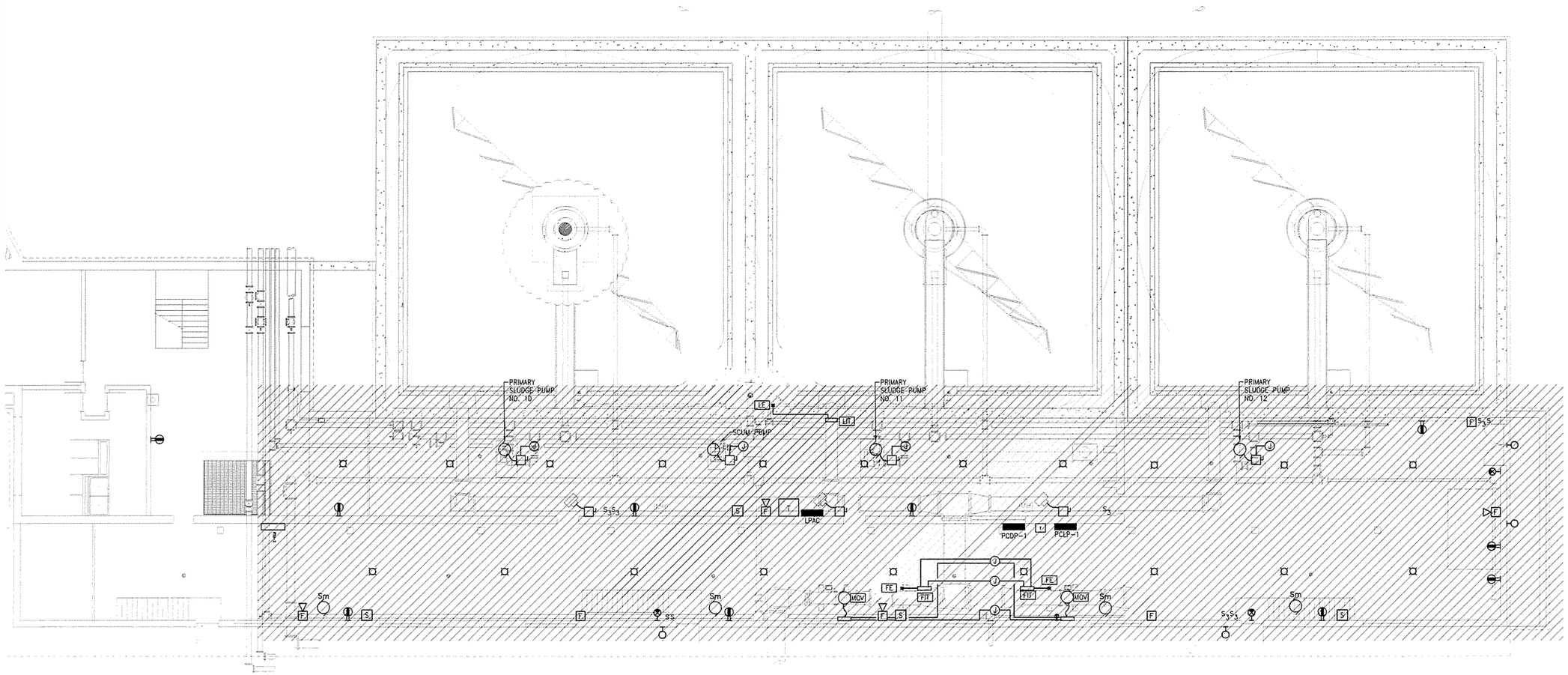
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

E-2.1

4/24/2020 10:44 AM W:\YEAR - 2018\180909.00 - TAUNTON WWTP UPGRADES\ELECTRICAL DEPARTMENT\180909.00 ELEC PRIMARY CLARIFIERS & SLUDGE PS DWG (BETA STB BW-STB)



PLAN

SCALE: 1/8"= 1'-0"

PREPARED BY

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SUBCONSULTANT

SAR ENGINEERING, INC.

Mechanical/Electrical Engineers
150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Demolition Primary Sludge Pump Station Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

AS SHOWN

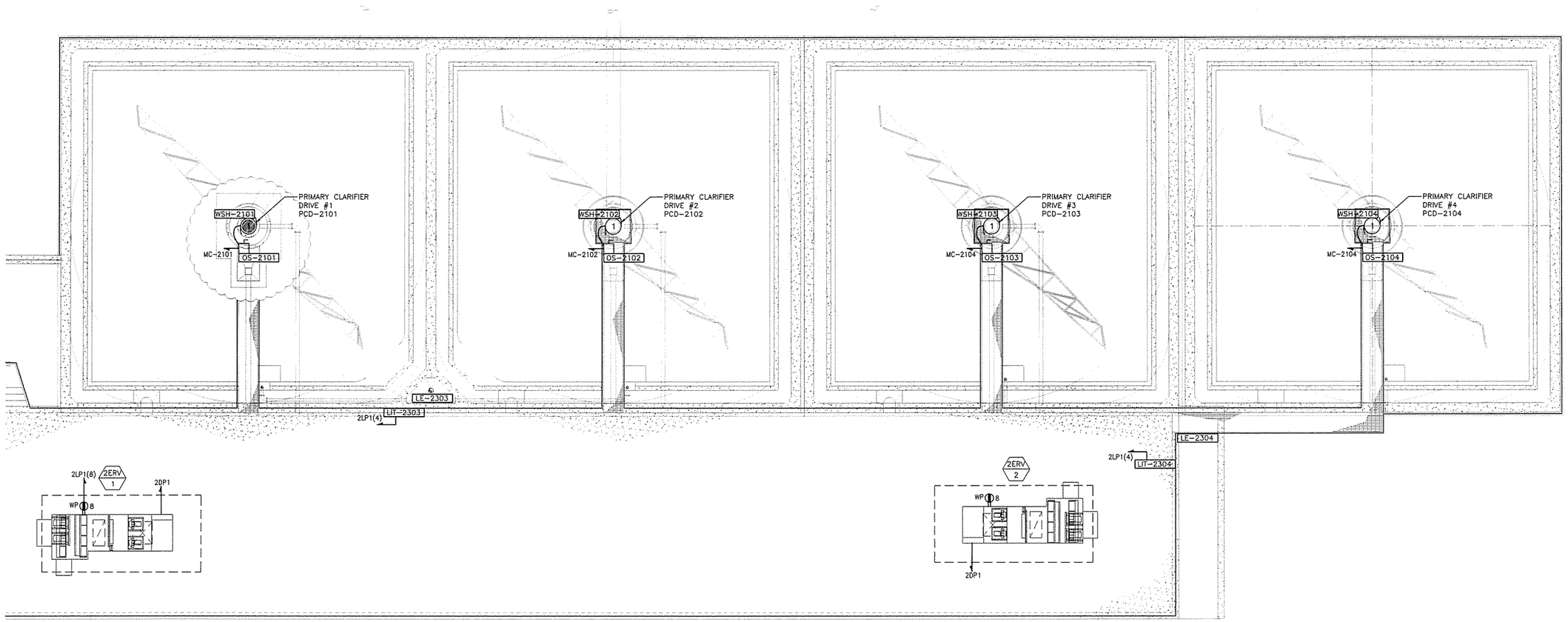
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

E-2.2

5/24/2020 10:44 AM W:\FAR_2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC PRIMARY CLARIFIERS & SLUDGE PS.DWG (BETA STB BW.STB)



PLAN

SCALE: 1/8"= 1'-0"

PREPARED BY

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150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Power Primary Clarifiers Power Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

AS SHOWN

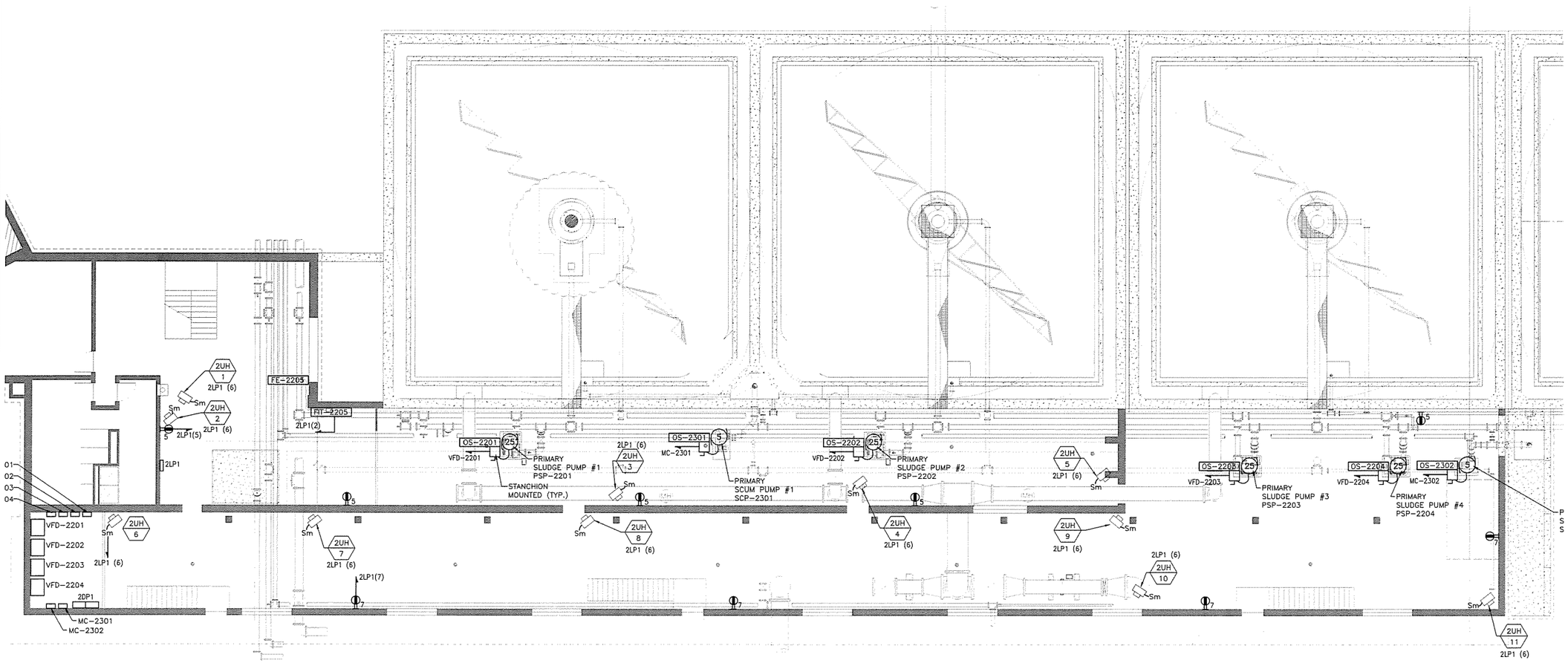
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

E-2.3

5/29/2020 10:43 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC PRIMARY CLARIFIERS & SLUDGE PS.DWG (BETA STB BW.STB)



PLAN

SCALE 1/8"= 1'-0"

PREPARED BY

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SUBCONSULTANT

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617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Primary Sludge Pump Station Power Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

AS SHOWN

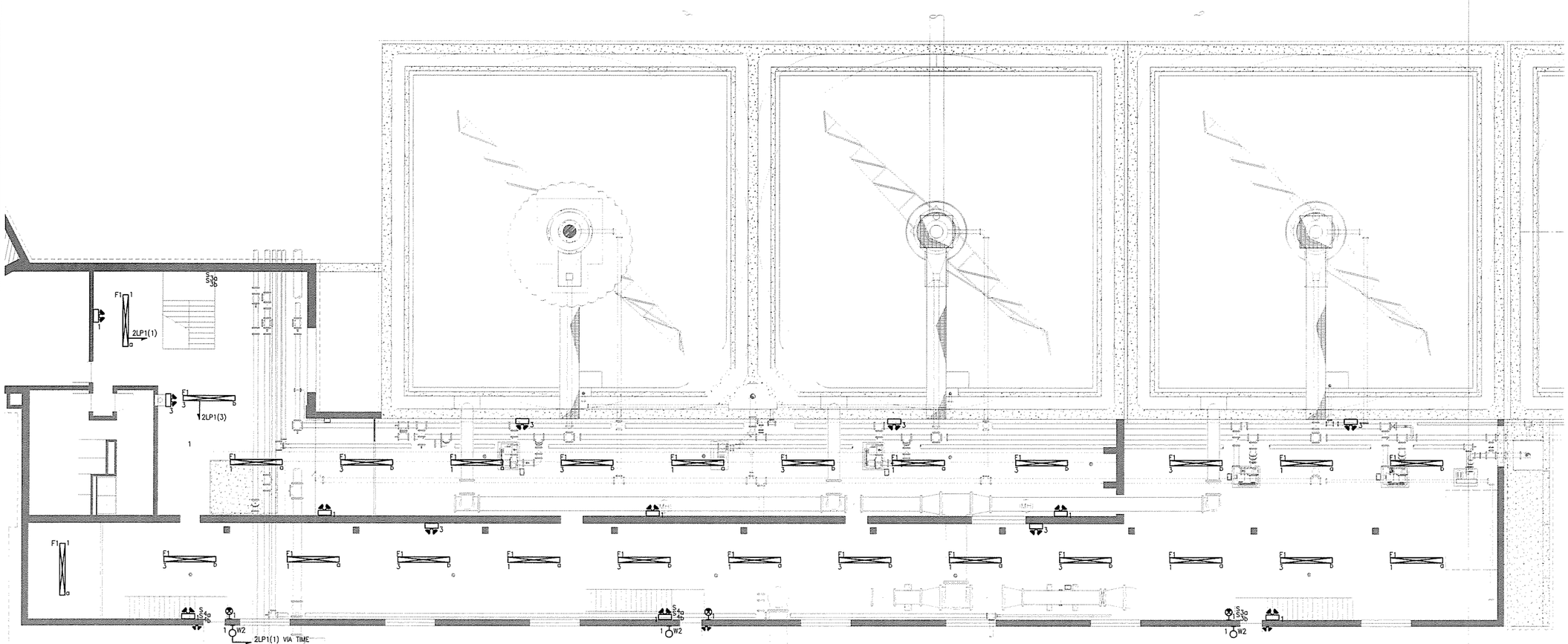
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

E-2.4

5/29/2020 10:45 AM M:\YEAR - 2018\18099.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18099.00 ELEC PRIMARY CLARIFIERS & SLUDGE PS DWG (BETA-STB BW-STB)



PLAN

SCALE 1/8"= 1'-0"

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Mechanical/Electrical Engineers
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617.328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Primary Sludge Pump Station Lighting Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

AS SHOWN

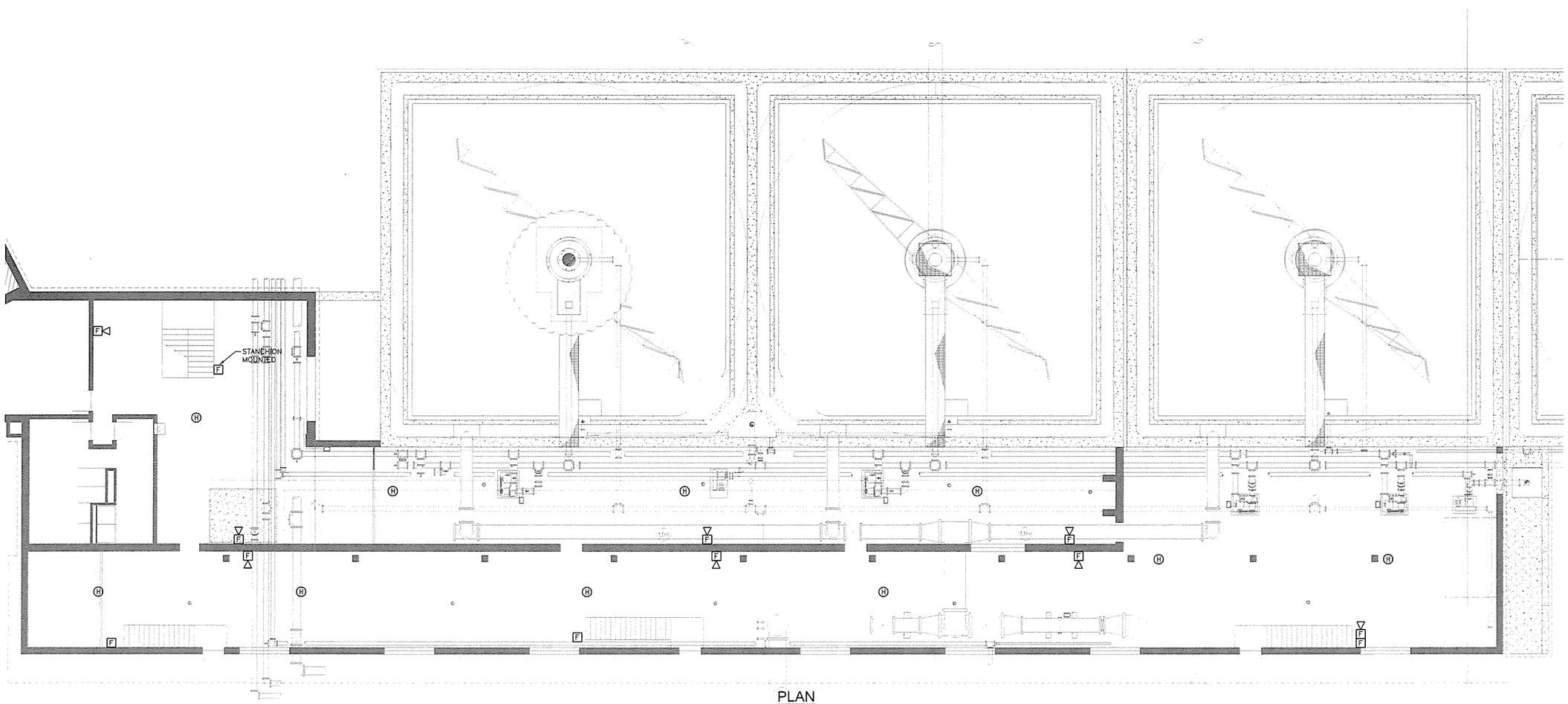
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

E-2.5

5/20/2020 10:45 AM W:\EAR_2018\18009.00_TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC PRIMARY CLARIFIERS & SLUDGE PS.DWG (BETA STB BW.STB)



PLAN
SCALE: 1/8"= 1'-0"

PREPARED BY

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617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Primary Sludge Pump Station Fire Alarm Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

AS SHOWN

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

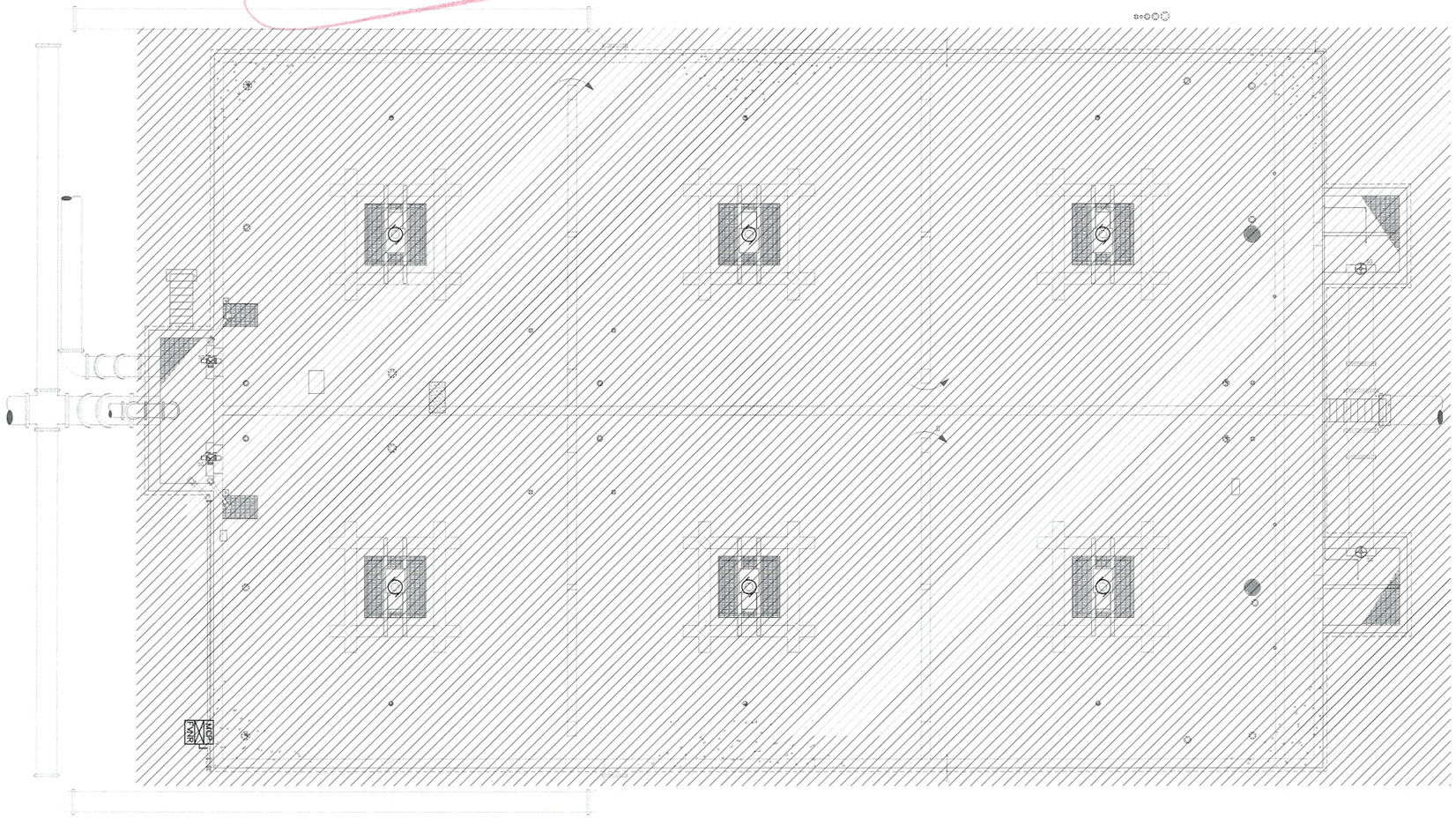
For Review Only

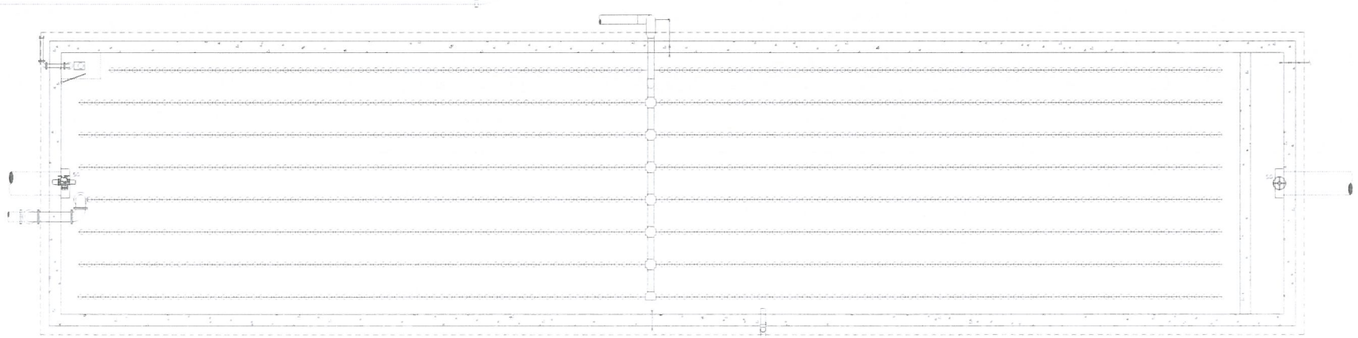
SHEET NO.

E-2.6

6/24/2020 10:45 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC PRIMARY CLARIFIERS & SLUDGE PS DWG (BETA STB BW-STB)

Phase 2





PLAN

SCALE: 1/8"= 1'-0"

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SUBCONSULTANT

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Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical
Demolition
Aeration Tanks
No. 1, 2, & 3
Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

AS SHOWN

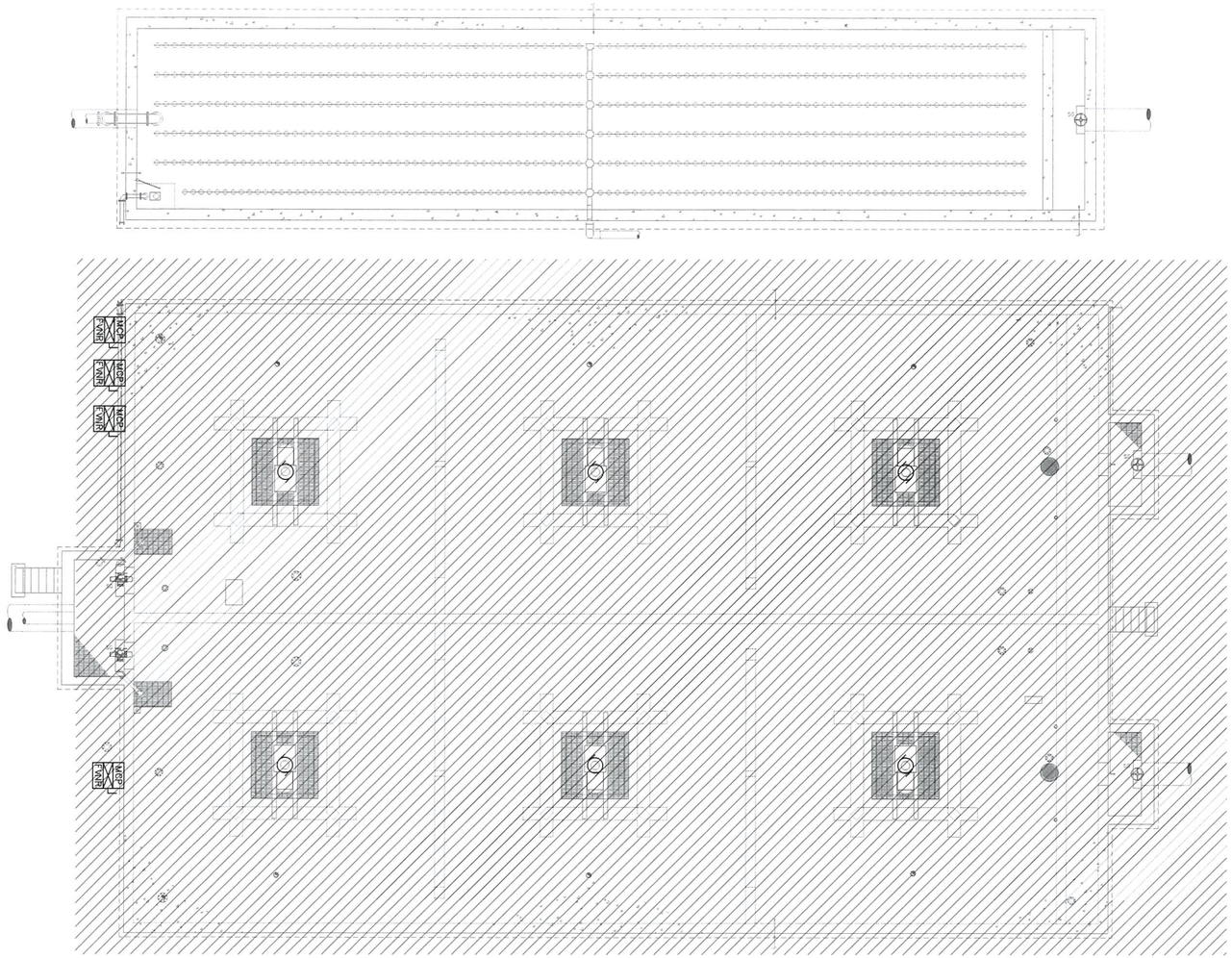
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

E-3.1

5/29/2020 10:47 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC AERATION TANKS.DWG (BETA STB BW.STB)



PLAN

SCALE: 1/8"= 1'-0"

NO
LEAVE AS IS.

PREPARED BY

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REGISTERED PROFESSIONAL

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SUBCONSULTANT

SAR ENGINEERING, INC.
Mechanical/Electrical Engineers
150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical
Demolition
Aeration Tanks
No. 4, 5, & 6
Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

AS SHOWN

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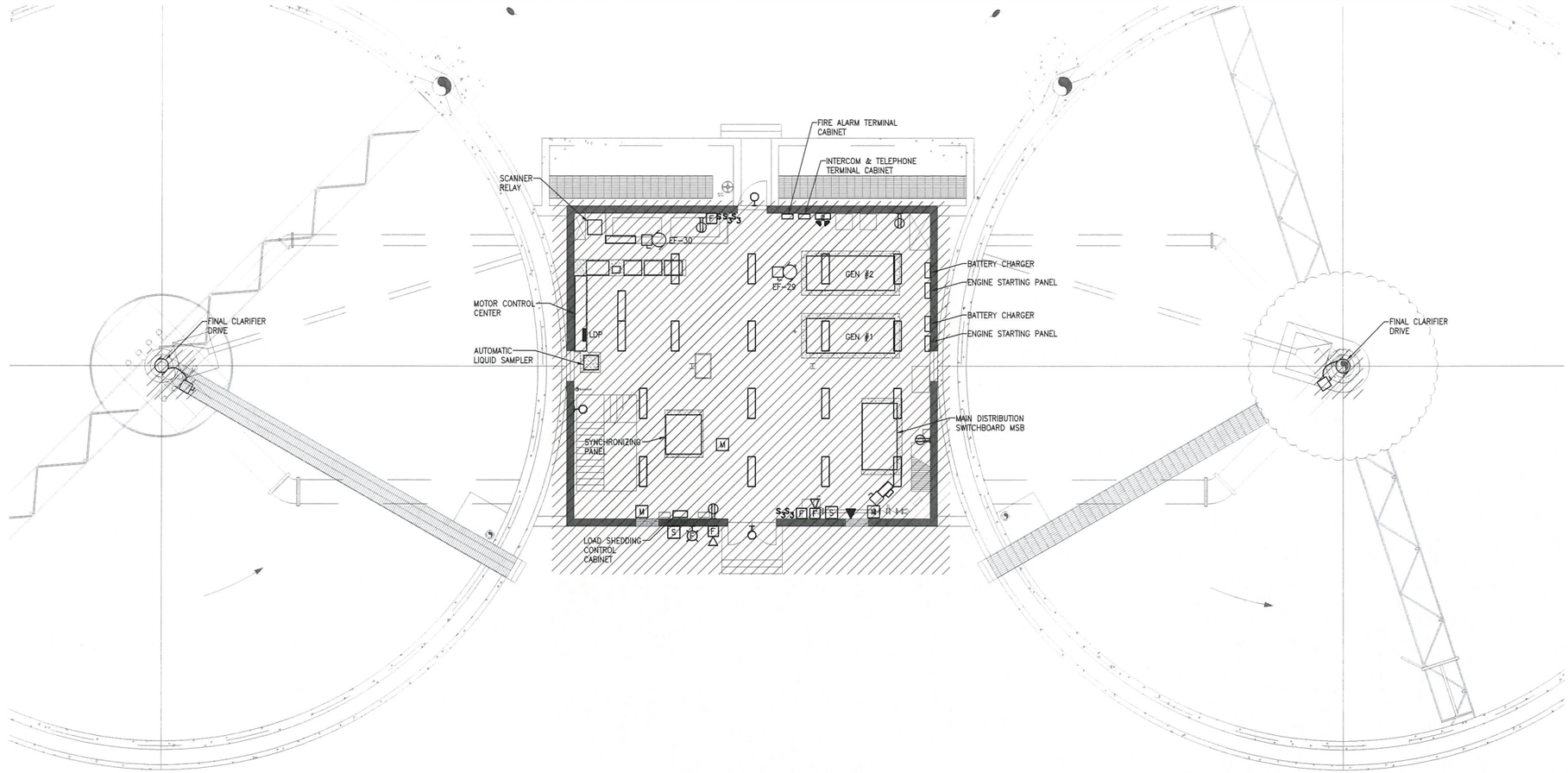
For Review Only

SHEET NO.

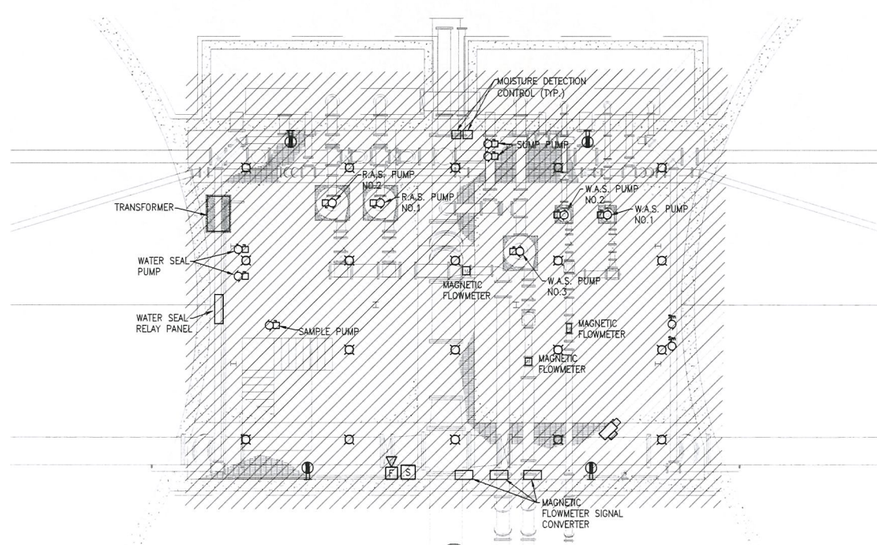
E-3.2

5/29/2020 10:48 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC AERATION TANKS DWG (BETA STB BW.STB)



UPPER LEVEL PLAN

SCALE: 1/8"= 1'-0"



LOWER LEVEL PLAN

SCALE: 1/8"= 1'-0"

Phase 2

PREPARED BY

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REGISTERED PROFESSIONAL

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SUBCONSULTANT

SAR ENGINEERING, INC.

Mechanical/Electrical Engineers
150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Demolition Final Clarifiers No. 1 & 2 Plan & Sludge Pump Station No.1 Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

NONE

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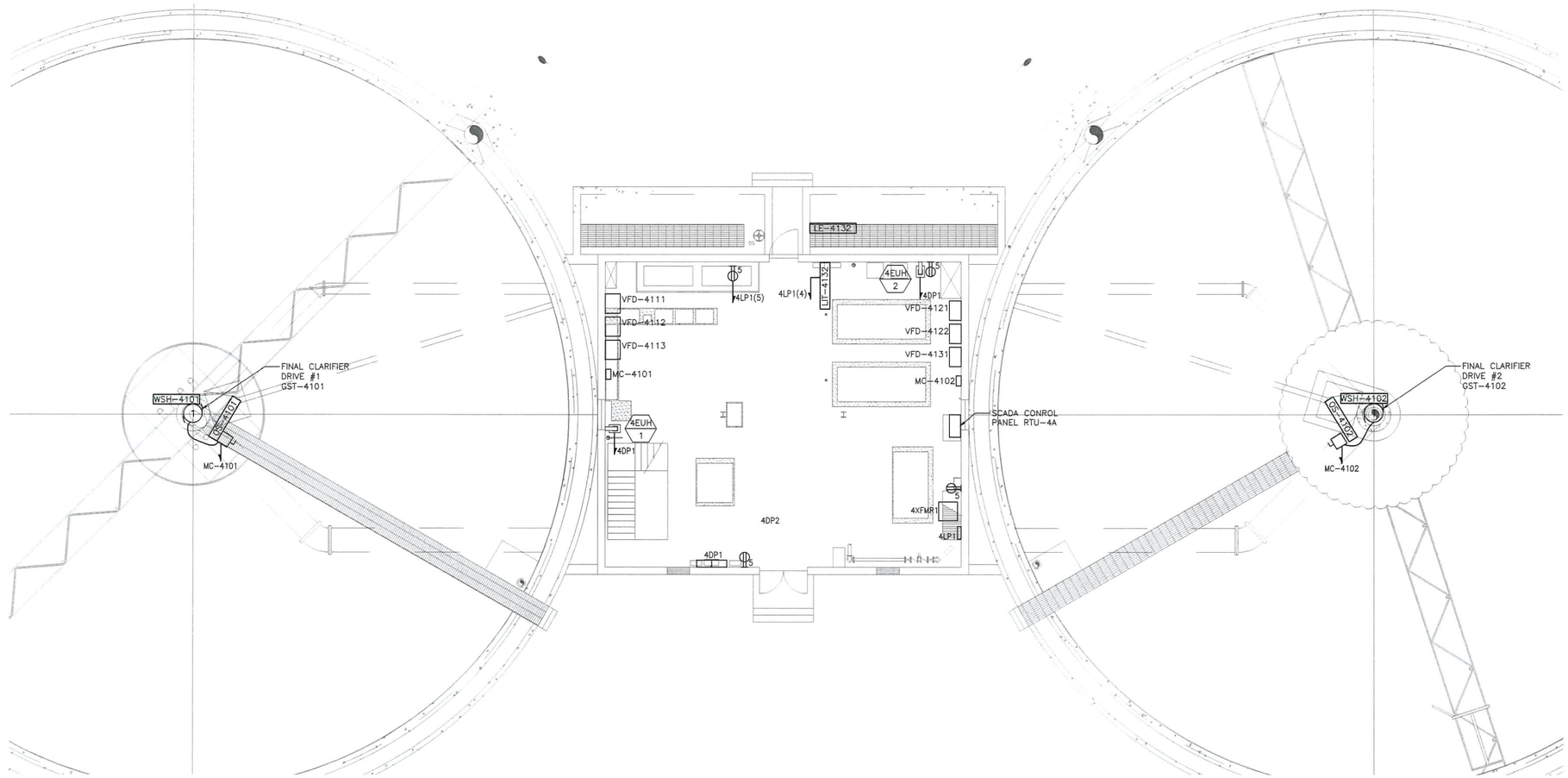
For Review Only

SHEET NO.

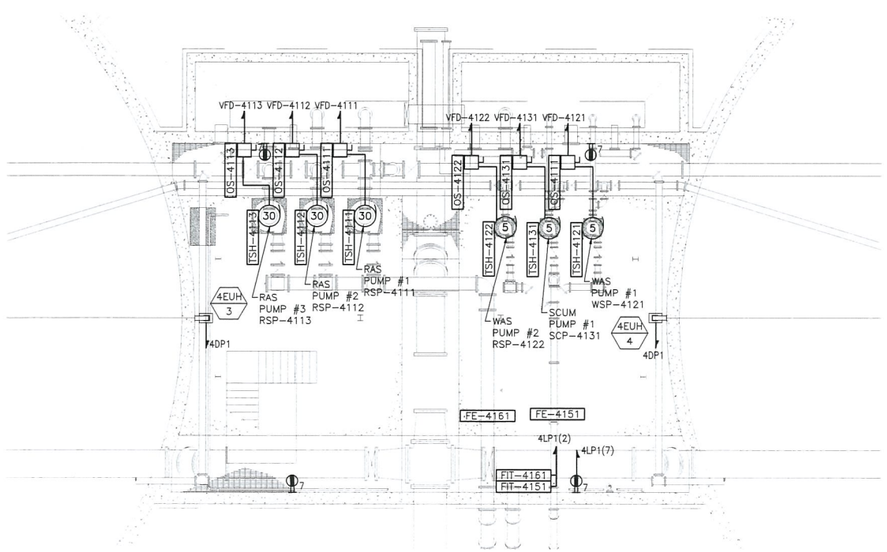
E-4.1

5/29/2020 10:56 AM WAYEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC FINAL CLARIFIERS & SECONDARY SLUDGE PS DWG (BETA STB BW-STB)



UPPER LEVEL PLAN

SCALE: 1/8"= 1'-0"



LOWER LEVEL PLAN

SCALE: 1/8"= 1'-0"

ROOF PLAN

SCALE: 1/8"= 1'-0"

PREPARED BY

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REGISTERED PROFESSIONAL

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SUBCONSULTANT

SAR ENGINEERING, INC.

Mechanical/Electrical Engineers
150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Final Clarifiers No.1 & 2 Plan & Sludge Pump Station No.1 Power Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

NONE

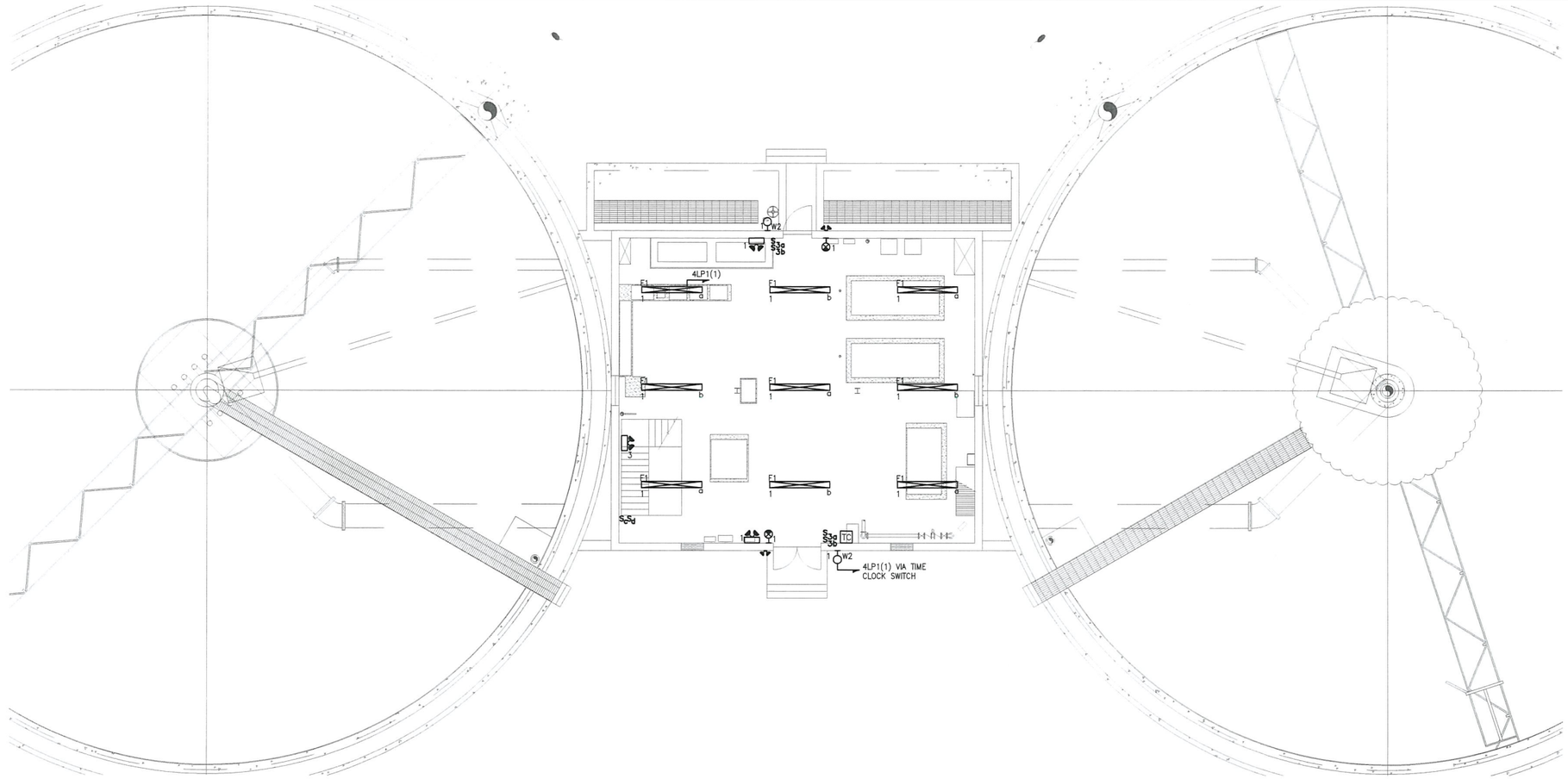
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

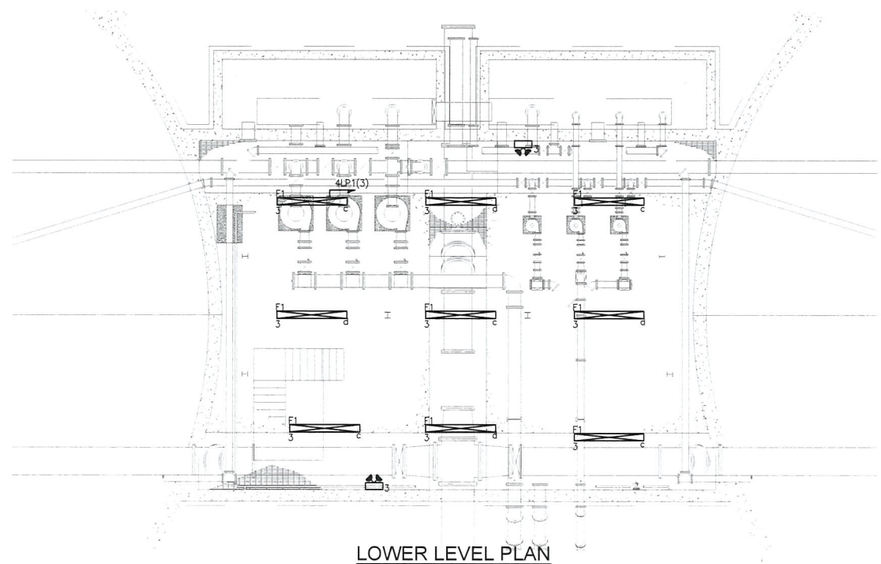
E-4.2

5/29/2020 11:31 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC FINAL CLARIFIERS & SECONDARY SLUDGE PS DWG (BETA STB BW.STB)



UPPER LEVEL PLAN

SCALE: 1/8"= 1'-0"



LOWER LEVEL PLAN

SCALE: 1/8"= 1'-0"

Phase 2

PREPARED BY

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REGISTERED PROFESSIONAL

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SUBCONSULTANT

SAR ENGINEERING, INC.

Mechanical/Electrical Engineers
150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Final Clarifiers No. 1 & 2 Plan & Sludge Pump Station No.1 Lighting Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

NONE

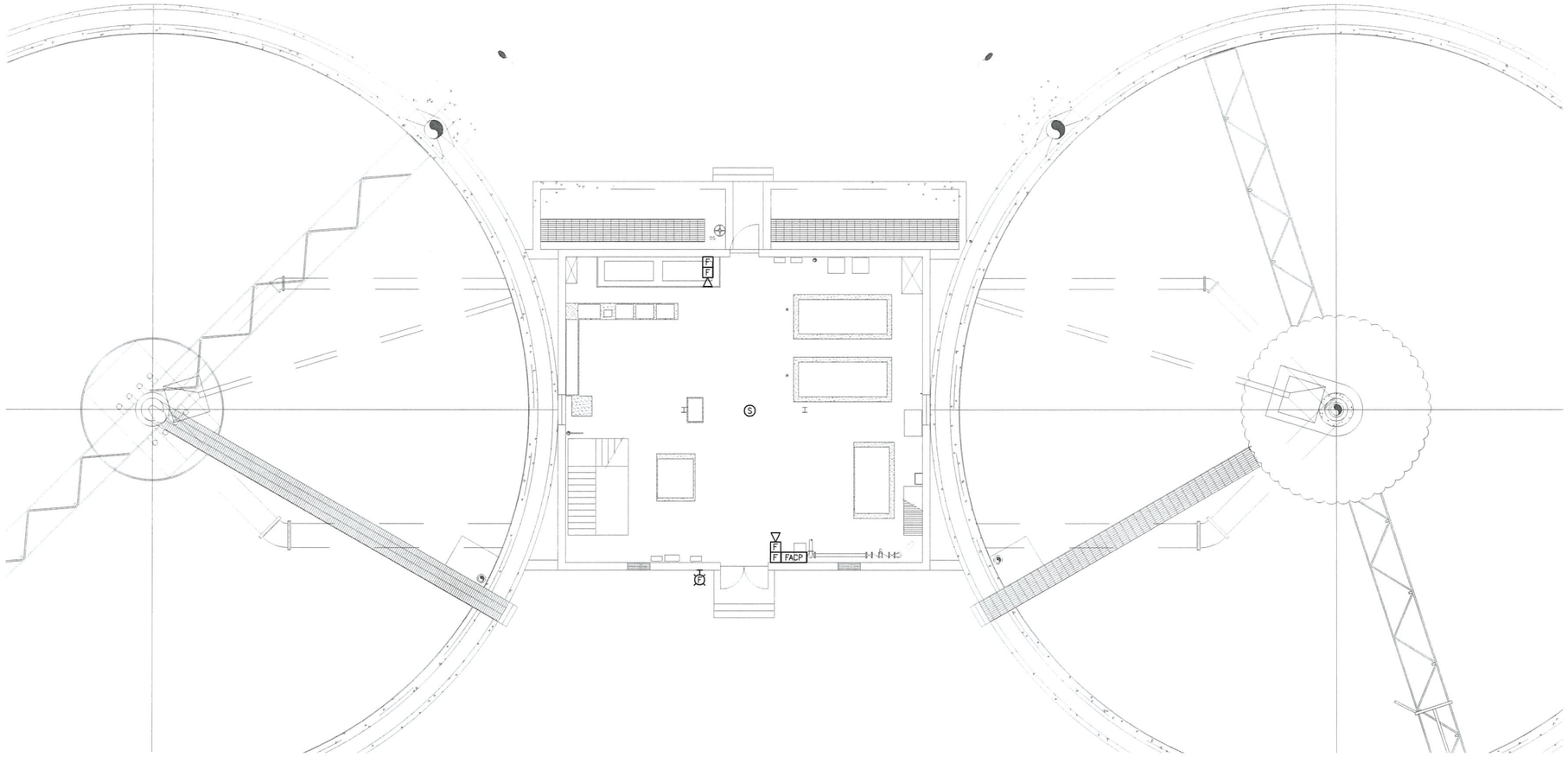
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

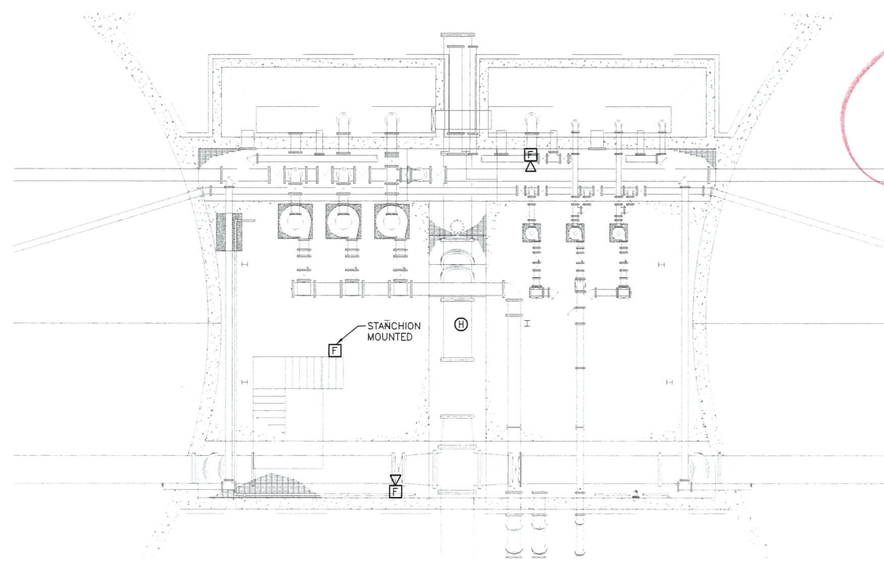
E-4.2

5/20/2020 10:57 AM W:\YEAR - 2018\18\009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18\009.00 ELEC FINAL CLARIFIERS & SECONDARY SLUDGE PS.DWG (BETA STB BW.STB)



UPPER LEVEL PLAN

SCALE: 1/8"= 1'-0"



LOWER LEVEL PLAN

SCALE: 1/8"= 1'-0"

Phase 2

PREPARED BY

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SUBCONSULTANT

SAR ENGINEERING, INC.

Mechanical/Electrical Engineers
150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Final Clarifiers No. 1 & 2 Plan & Sludge Pump Station No.1 Fire Alarm Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

NONE

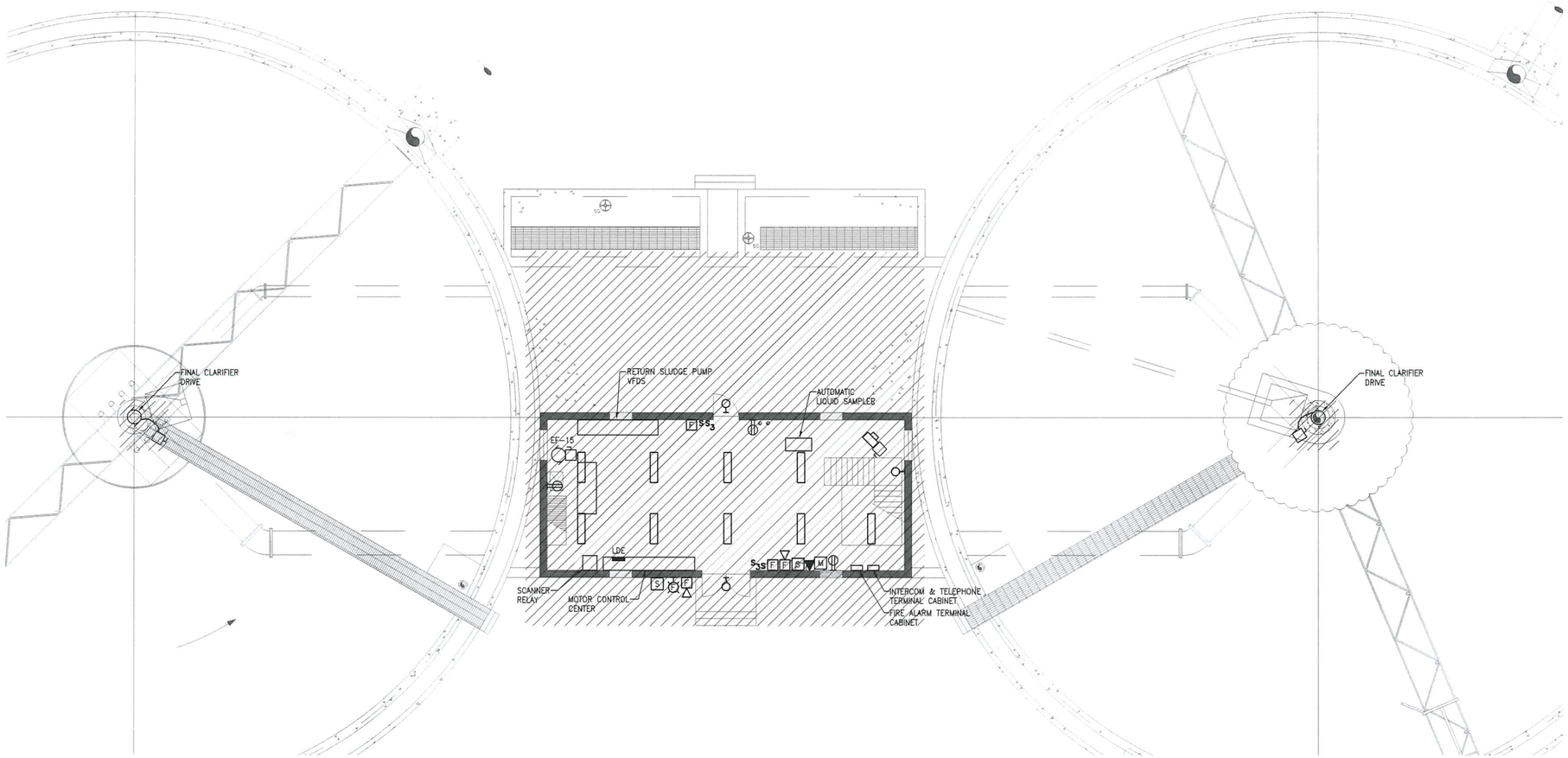
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

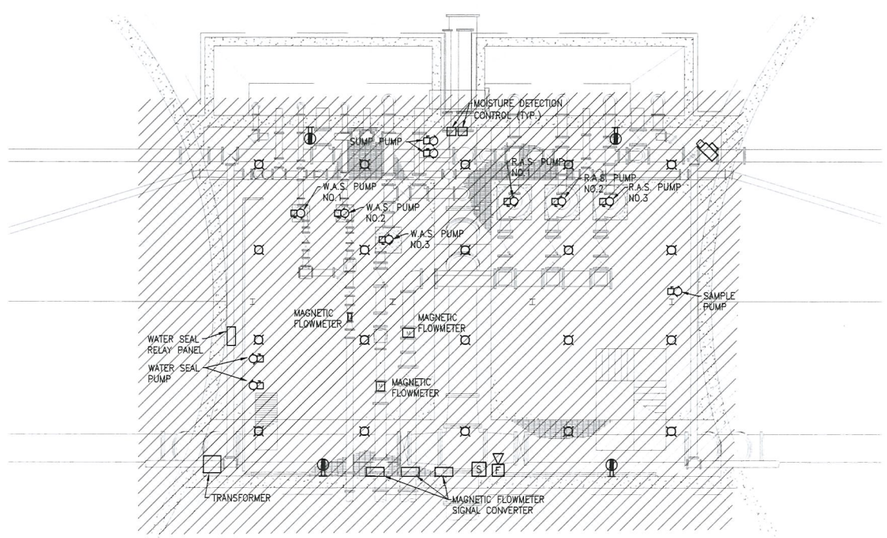
E-4.4

5/29/2020 10:57 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC FINAL CLARIFIERS & SECONDARY SLUDGE PS DWG (BETA STB BW STB)



UPPER LEVEL PLAN

SCALE: 1/8"= 1'-0"



LOWER LEVEL PLAN

SCALE: 1/8"= 1'-0"

Phase 2

PREPARED BY

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REGISTERED PROFESSIONAL

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SUBCONSULTANT

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Mechanical/Electrical Engineers
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Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Demolition Final Clarifiers No. 3 & 4 Plan & Sludge Pump Station No.2 Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

NONE

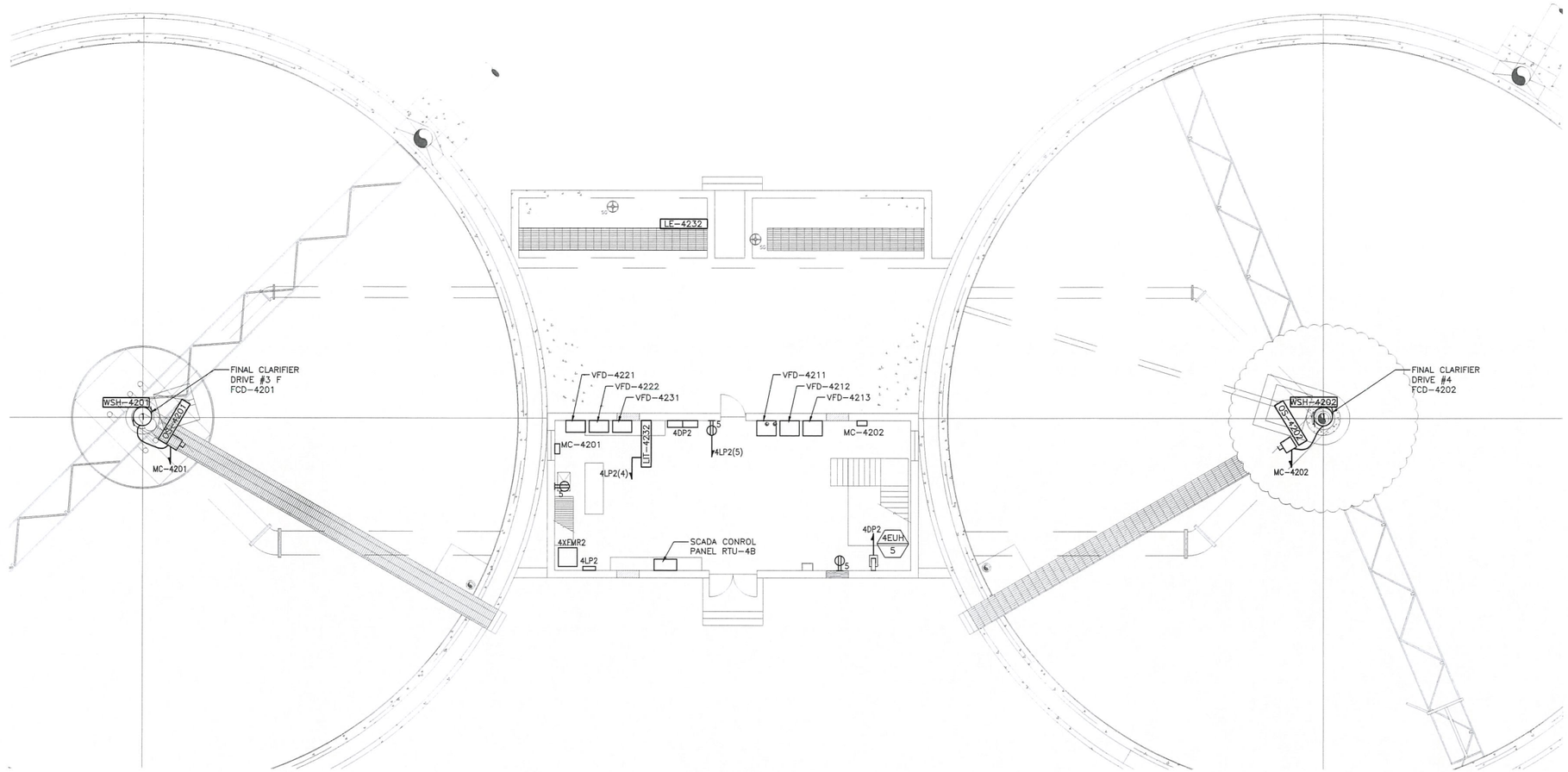
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

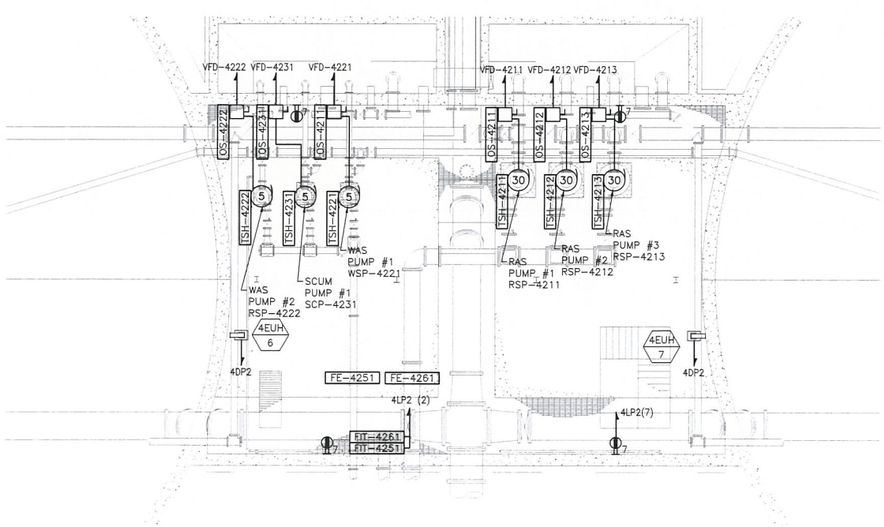
E-4.5

5/29/2020 10:57 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC FINAL CLARIFIERS & SECONDARY SLUDGE PS.DWG (BETA STB BW.STB)



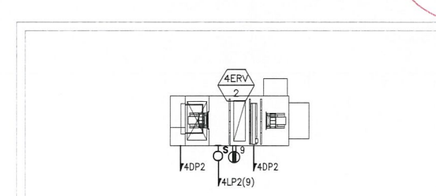
UPPER LEVEL PLAN

SCALE: 1/8"= 1'-0"



LOWER LEVEL PLAN

SCALE: 1/8"= 1'-0"



ROOF PLAN

SCALE: 1/8"= 1'-0"

Phase 2

PREPARED BY

BETA
www.BETA-Inc.com

REGISTERED PROFESSIONAL

NOT FOR CONSTRUCTION (CONCEPTUAL)

SUBCONSULTANT

SAR ENGINEERING, INC.

Mechanical/Electrical Engineers
150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Final Clarifiers No. 3 & 4 Plan & Sludge Pump Station No.2 Power Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

NONE

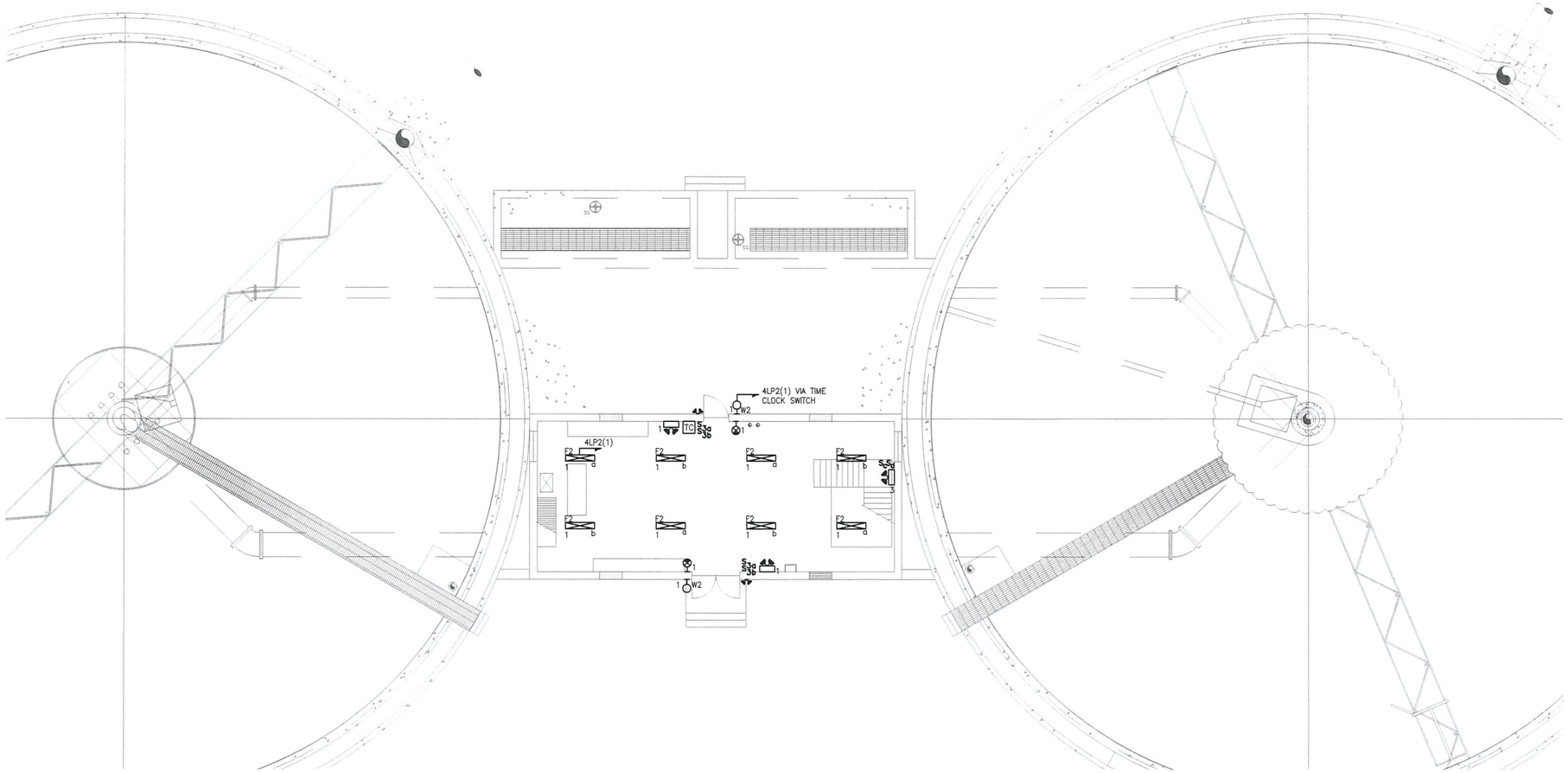
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

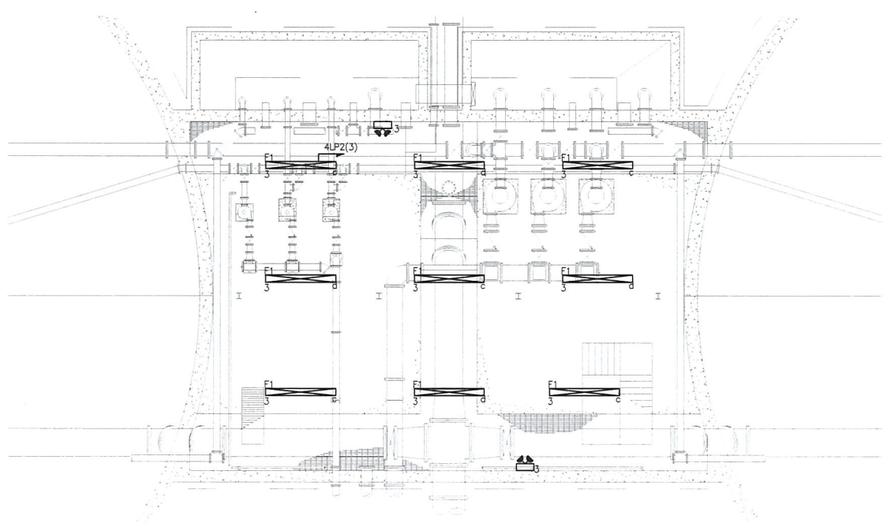
E-4.6

5/29/2020 11:32 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC FINAL CLARIFIERS & SECONDARY SLUDGE PS DWG (BETA STB BW STB)



UPPER LEVEL PLAN

SCALE: 1/8"= 1'-0"



LOWER LEVEL PLAN

SCALE: 1/8"= 1'-0"

Phase 2

PREPARED BY

BETA
www.BETA-Inc.com

REGISTERED PROFESSIONAL

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SUBCONSULTANT

SAR ENGINEERING, INC.

Mechanical/Electrical Engineers
150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Final Clarifiers No. 3 & 4 Plan & Sludge Pump Station No.2 Lighting Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

NONE

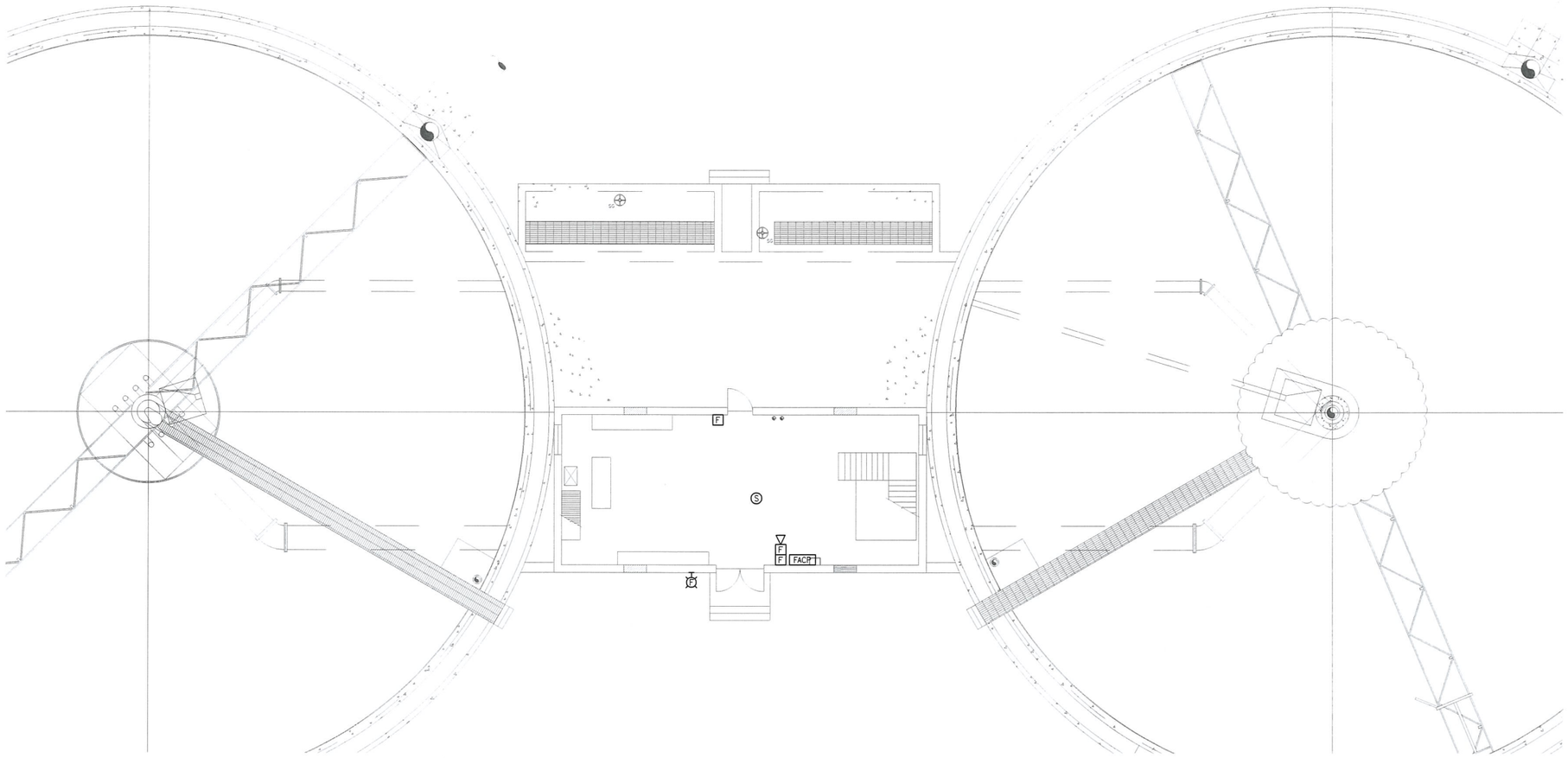
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

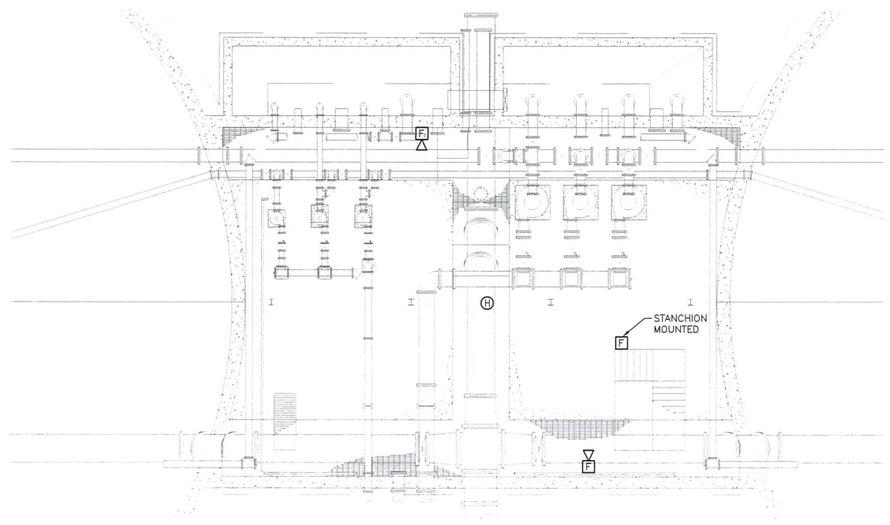
E-4.7

5/29/2020 10:58 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC FINAL CLARIFIERS & SECONDARY SLUDGE PS DWG (BETA STB BW.STB)



UPPER LEVEL PLAN

SCALE: 1/8"= 1'-0"



LOWER LEVEL PLAN

SCALE: 1/8"= 1'-0"

Phase 2

PREPARED BY

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REGISTERED PROFESSIONAL

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SUBCONSULTANT

SAR ENGINEERING, INC.

Mechanical/Electrical Engineers
150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Final Clarifiers No. 3 & 4 Plan & Sludge Pump Station No.2 Fire Alarm Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

NONE

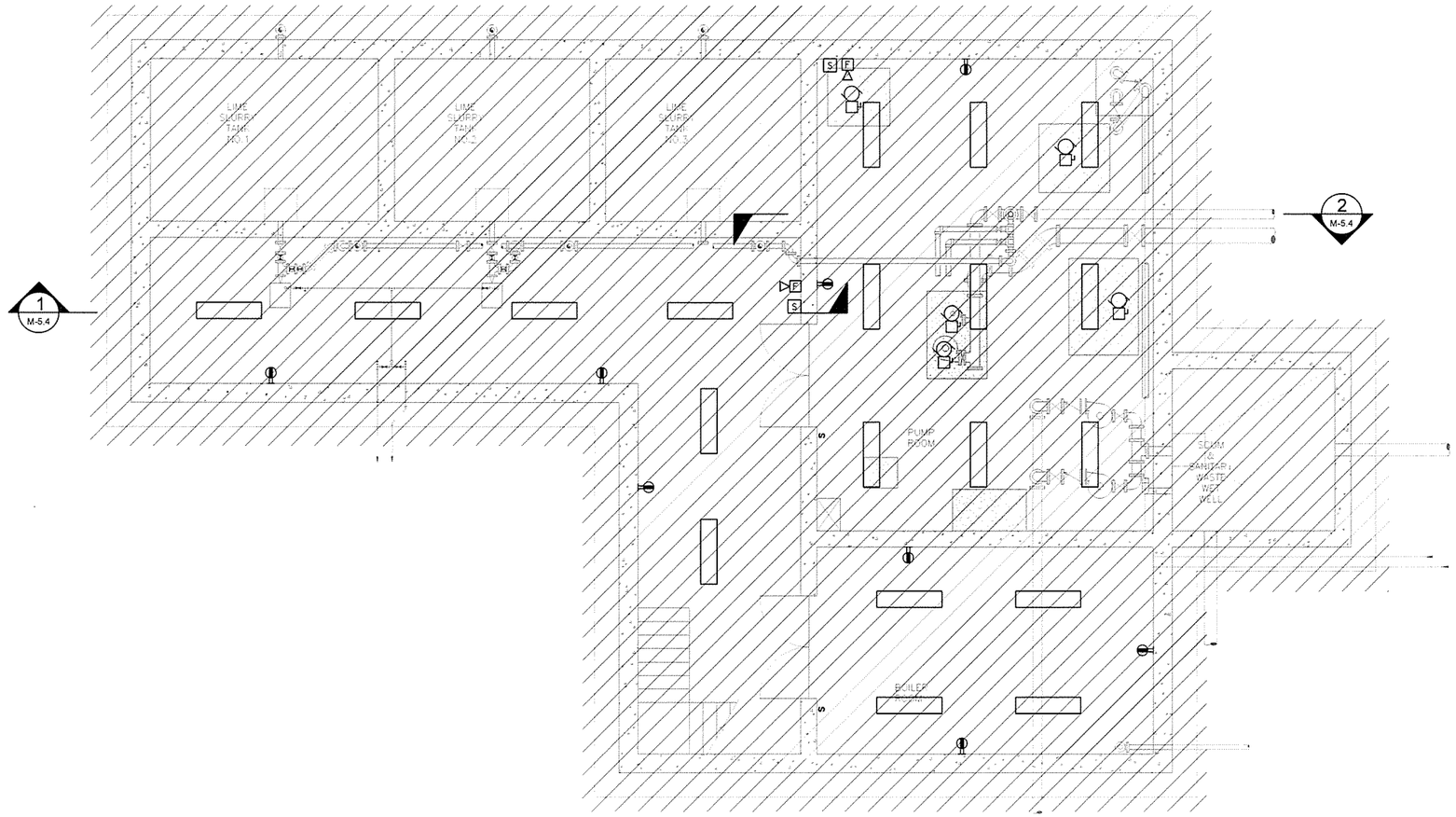
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

E-4.8

5/29/2020 10:58 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC FINAL CLARIFIERS & SECONDARY SLUDGE PS DWG (BETA STB BW.STB)



BASEMENT - PLAN

SCALE: 1/4"= 1'-0"

PREPARED BY

BETA
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REGISTERED PROFESSIONAL

NOT FOR CONSTRUCTION (CONCEPTUAL)

SUBCONSULTANT

SAR ENGINEERING, INC.

Mechanical/Electrical Engineers
150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Demolition
Chemical Handling Building
Basement Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

AS SHOWN

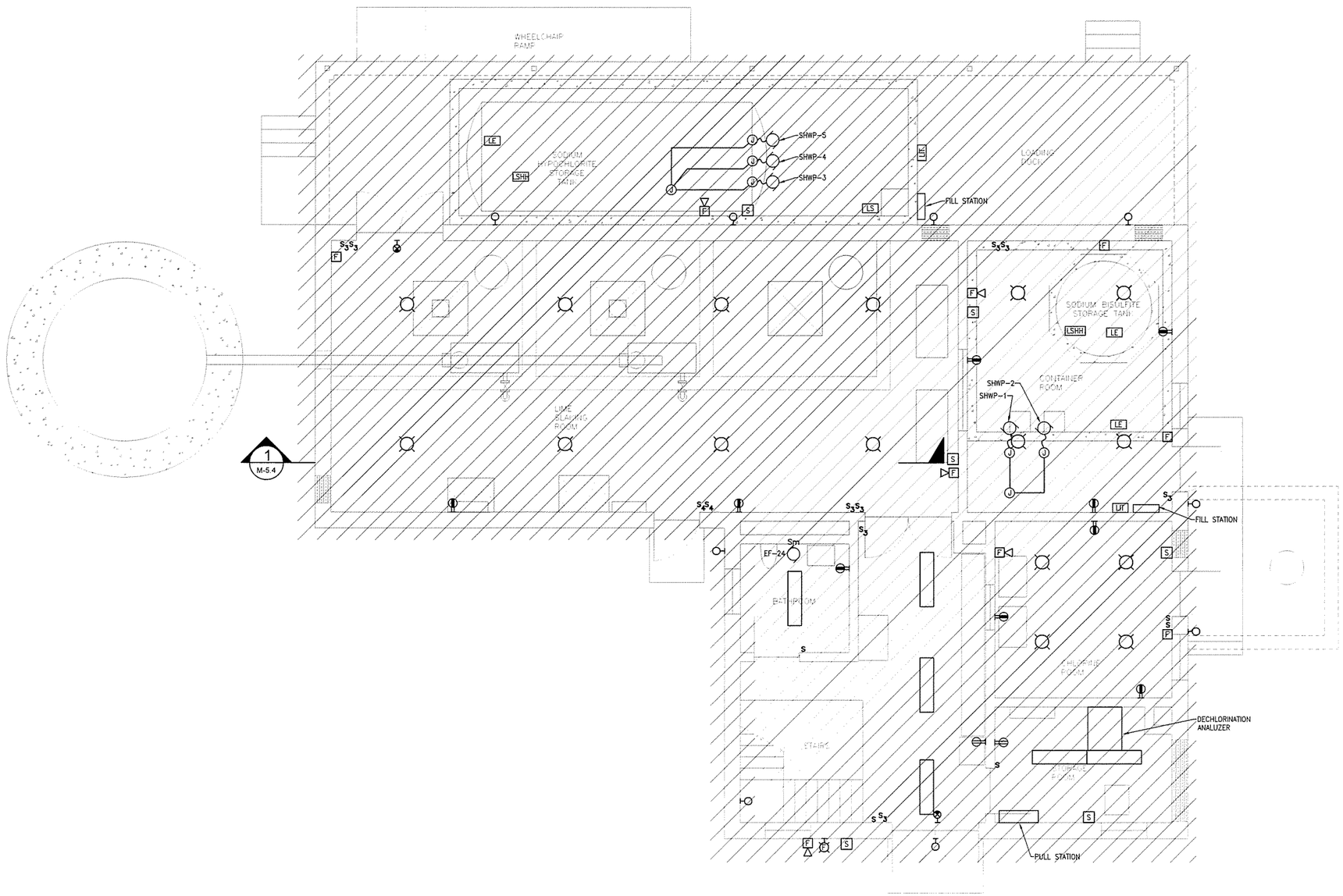
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

E-5.1

5/26/2020 11:04 AM W:\YEAR 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC CHEMICAL HANDLING BUILDING.DWG (BETA STB BW.STB)



FIRST FLOOR - PLAN

SCALE: 1/4"= 1'-0"

PREPARED BY

BETA
www.BETA-Inc.com

REGISTERED PROFESSIONAL

NOT FOR CONSTRUCTION (CONCEPTUAL)

SUBCONSULTANT

SAR ENGINEERING, INC.

Mechanical/Electrical Engineers
150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Demolition Chemical Handling Building First Floor Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

AS SHOWN

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

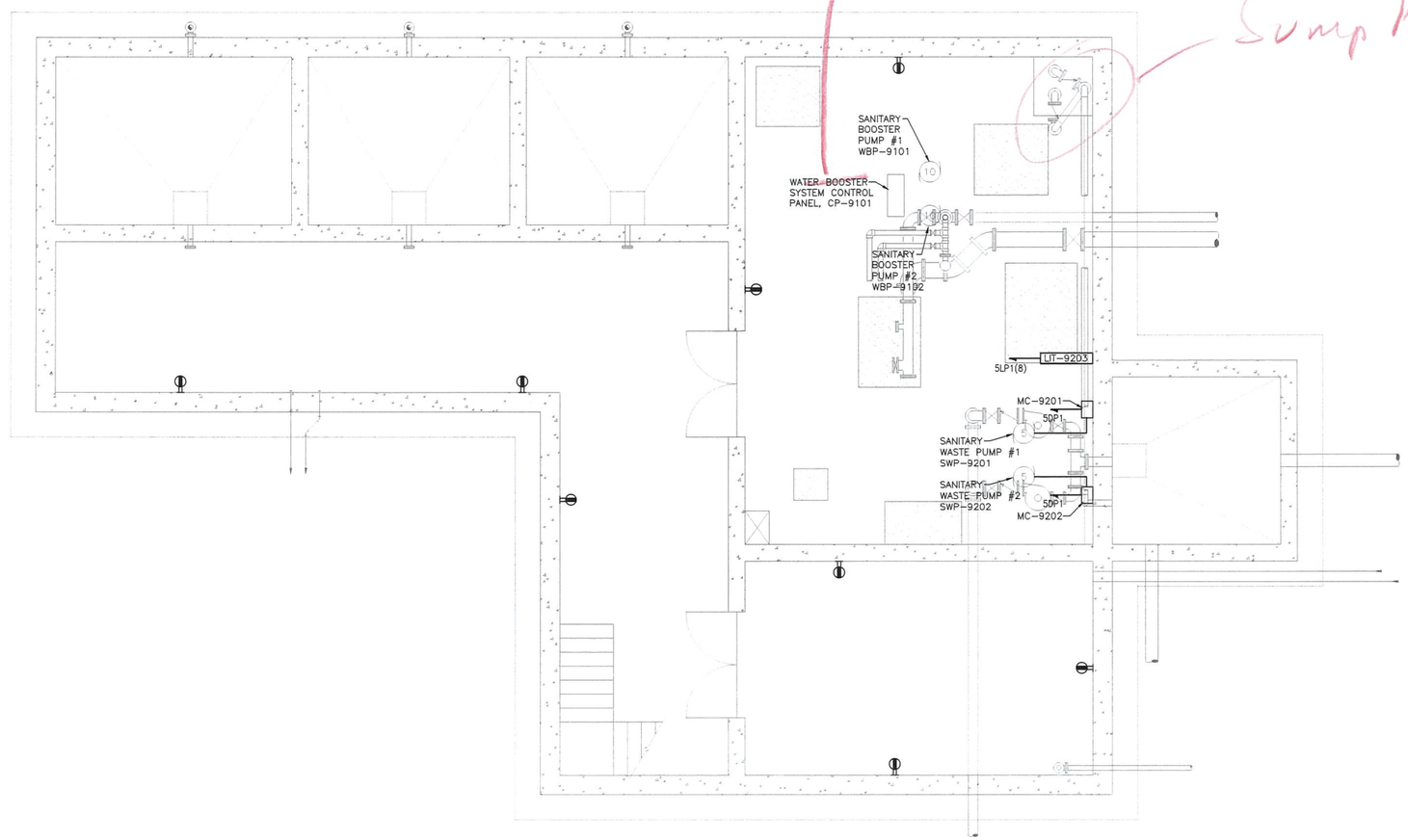
SHEET NO.

E-5.1

5/29/2020 11:04 AM WYEAR 2018\18009.00 TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC CHEMICAL HANDLING BUILDING DWG (BETA STB BW.STB)

Plant Water.

Sump Pumps?



BASEMENT - PLAN

SCALE: 1/4"= 1'-0"

PREPARED BY

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REGISTERED PROFESSIONAL

NOT FOR CONSTRUCTION (CONCEPTUAL)

SUBCONSULTANT

SAR ENGINEERING, INC.

Mechanical/Electrical Engineers
150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Chemical Handling Building Basement Power Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

AS SHOWN

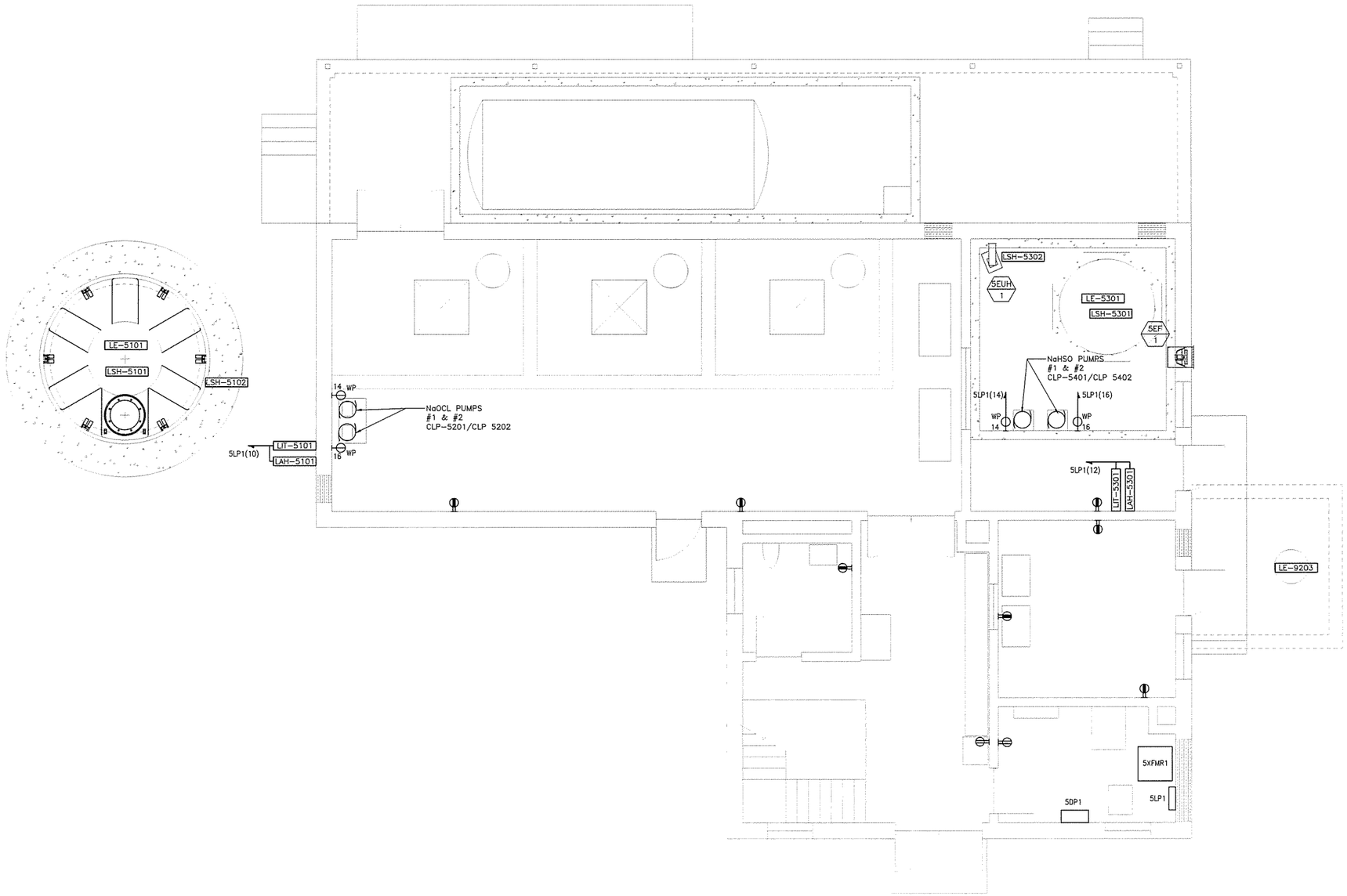
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

E-5.3

5/29/2020 11:04 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC CHEMICAL HANDLING BUILDING.DWG (BETA STB BW.STB)



FIRST FLOOR - PLAN

SCALE: 1/4"= 1'-0"

PREPARED BY

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REGISTERED PROFESSIONAL

NOT FOR CONSTRUCTION (CONCEPTUAL)

SUBCONSULTANT

SAR ENGINEERING, INC.

Mechanical/Electrical Engineers
150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical
Chemical
Handling Building
First Floor Power
Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

AS SHOWN

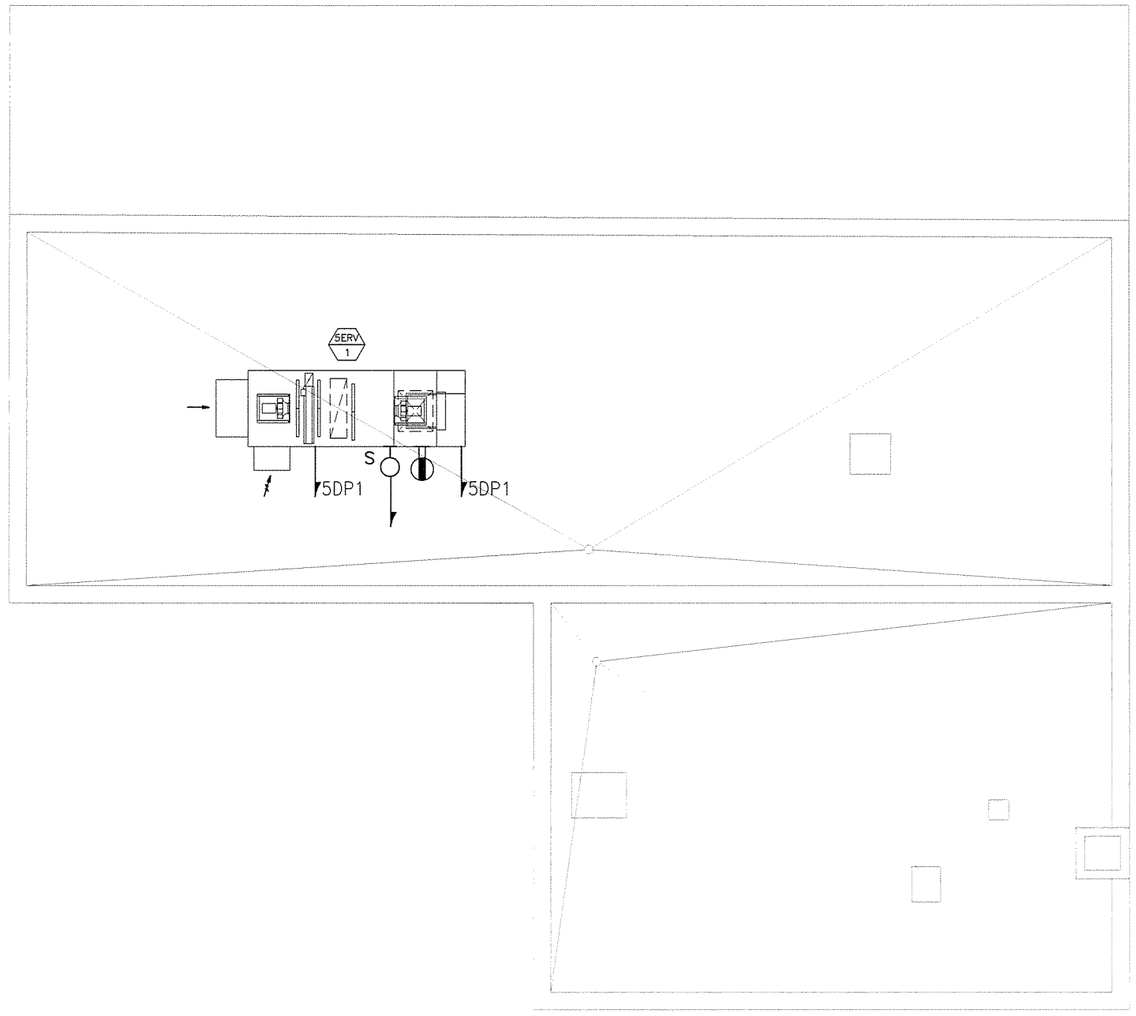
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

E-5.4

5/29/2020 11:05 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC CHEMICAL HANDLING BUILDING DWG (BETA STB BW.STB)



ROOF - PLAN
SCALE: 1/4"= 1'-0"

PREPARED BY

BETA
www.BETA-Inc.com

REGISTERED PROFESSIONAL

NOT FOR CONSTRUCTION (CONCEPTUAL)

SUBCONSULTANT

SAR ENGINEERING, INC.
Mechanical/Electrical Engineers
150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Chemical Handling Building First Floor Power Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

AS SHOWN

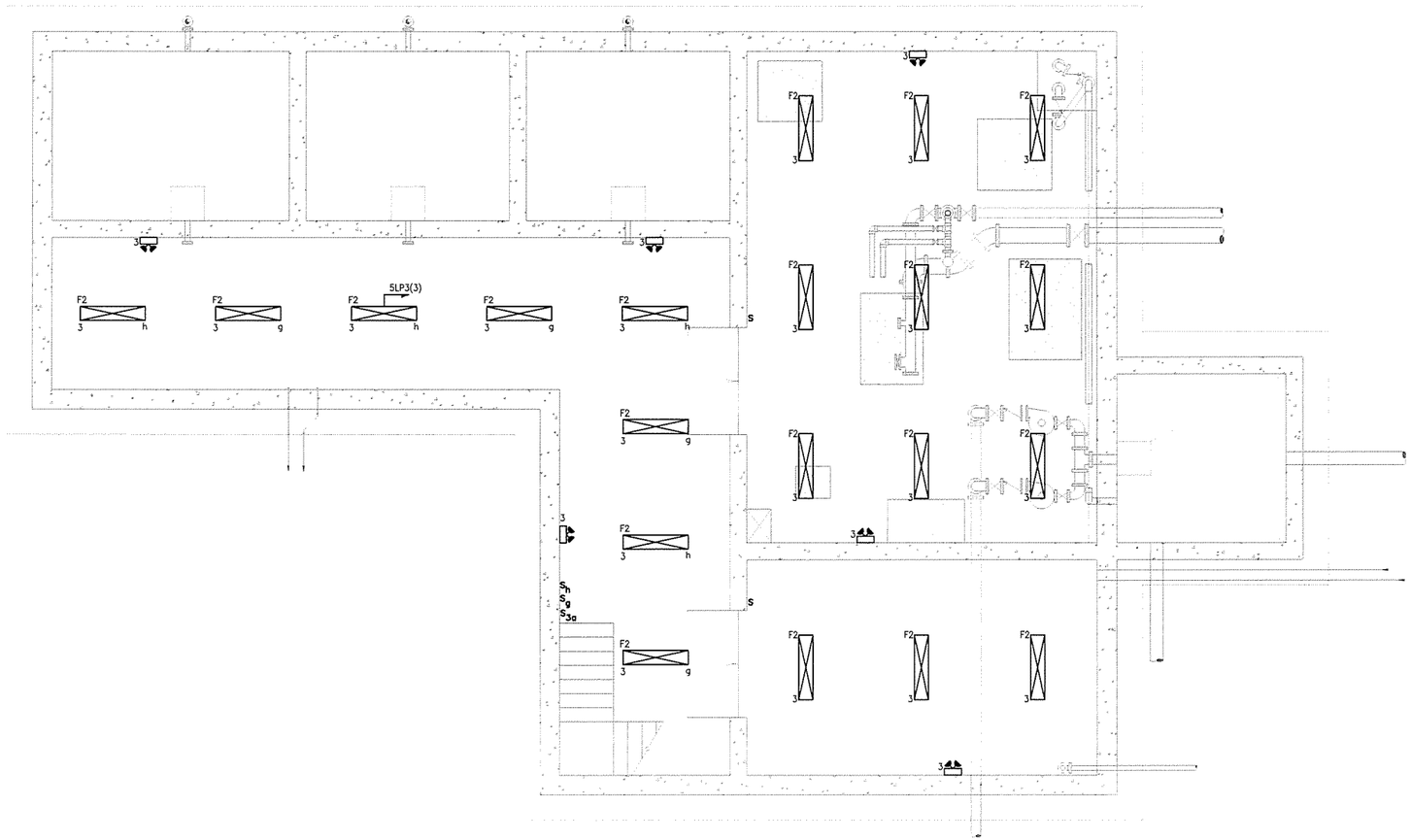
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

E-5.5

5/29/2020 11:05 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC CHEMICAL HANDLING BUILDING.DWG (BETA.STB BW.STB)



BASEMENT - PLAN

SCALE: 1/4"= 1'-0"

PREPARED BY

BETA
www.BETA-Inc.com

REGISTERED PROFESSIONAL

NOT FOR CONSTRUCTION (CONCEPTUAL)

SUBCONSULTANT

SAR ENGINEERING, INC.
Mechanical/Electrical Engineers
150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Chemical Handling Building Basement Lighting Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

AS SHOWN

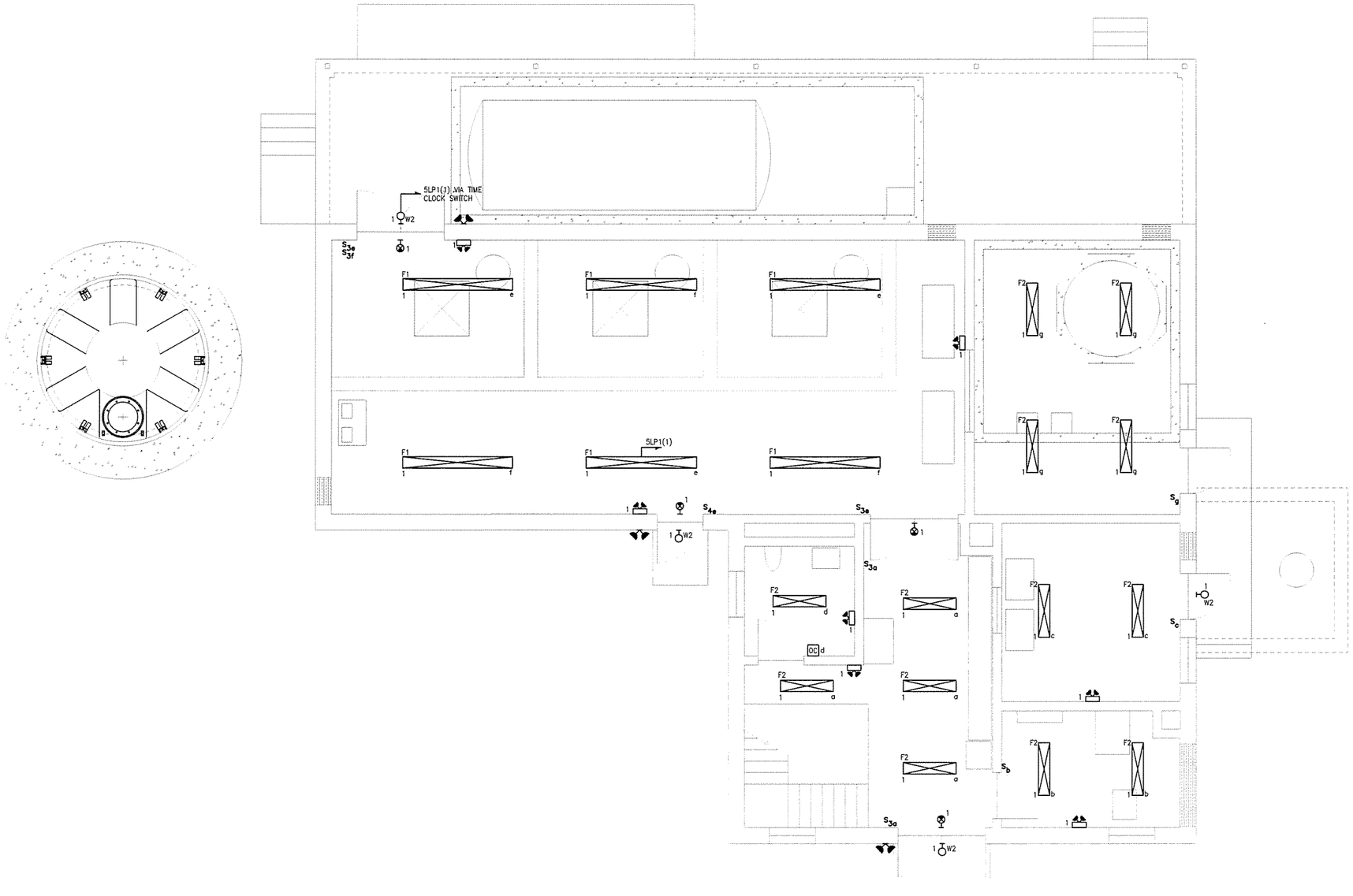
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

E-5.6

5/29/2020 11:05 AM M:\YEAR - 2018\18009-00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009-00 ELEC CHEMICAL HANDLING BUILDING.DWG (BETA STB BW.STB)



FIRST FLOOR - PLAN

SCALE: 1/4"= 1'-0"

PREPARED BY

BETA

www.BETA-Inc.com

REGISTERED PROFESSIONAL

NOT FOR CONSTRUCTION (CONCEPTUAL)

SUBCONSULTANT

SAR ENGINEERING, INC.

Mechanical/Electrical Engineers
150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9235
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical
Chemical
Handling Building
First Floor
Lighting Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

AS SHOWN

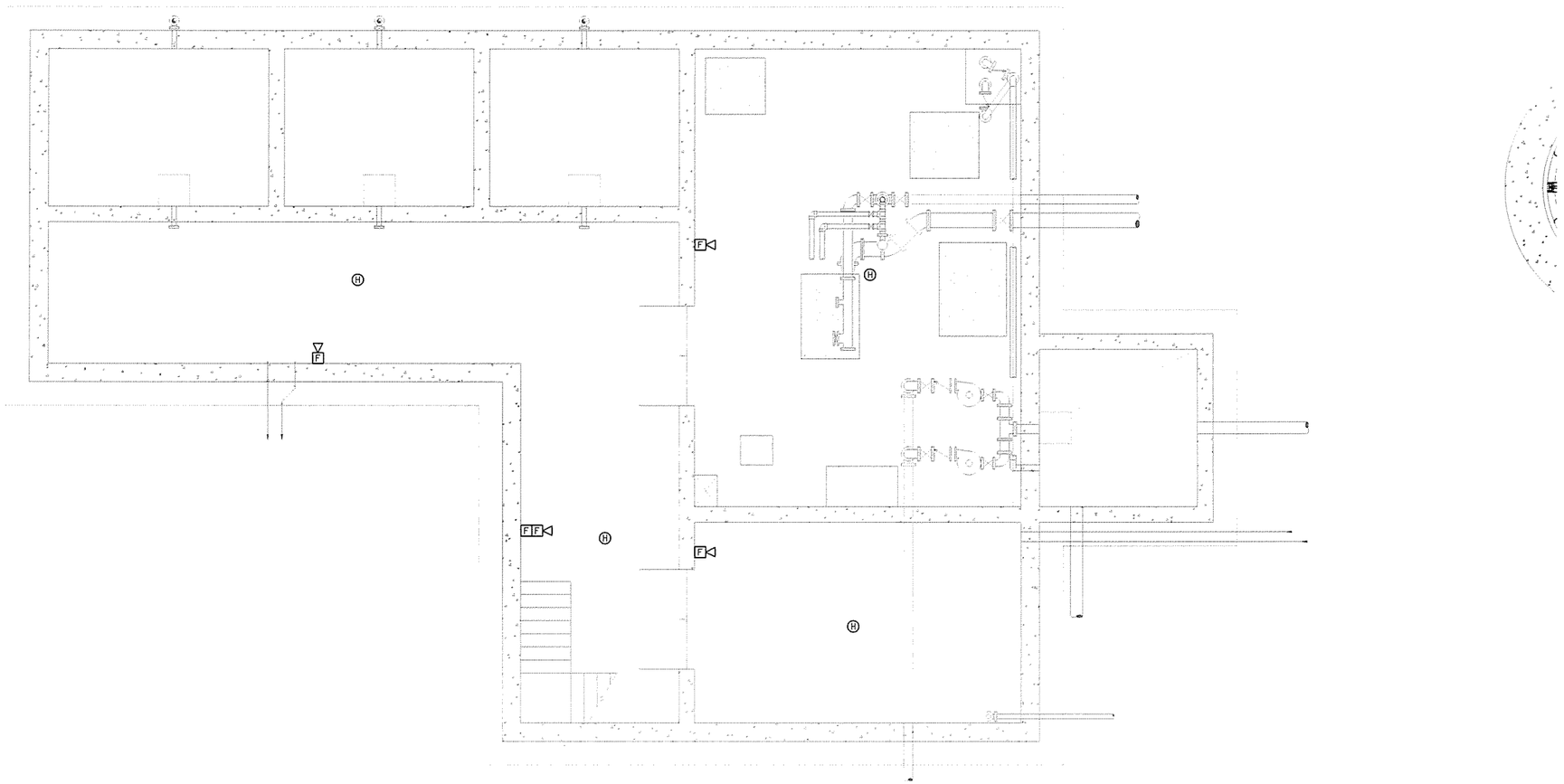
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

E-5.7

5/29/2020 11:05 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC CHEMICAL HANDLING BUILDING.DWG (BETA STB BW.STB)



BASEMENT - PLAN

SCALE: 1/4"= 1'-0"

PREPARED BY

BETA

www.BETA-Inc.com

REGISTERED PROFESSIONAL

NOT FOR CONSTRUCTION (CONCEPTUAL)

SUBCONSULTANT

SAR ENGINEERING, INC.

Mechanical/Electrical Engineers
150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Chemical Handling Building Basement Fire Alarm Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

AS SHOWN

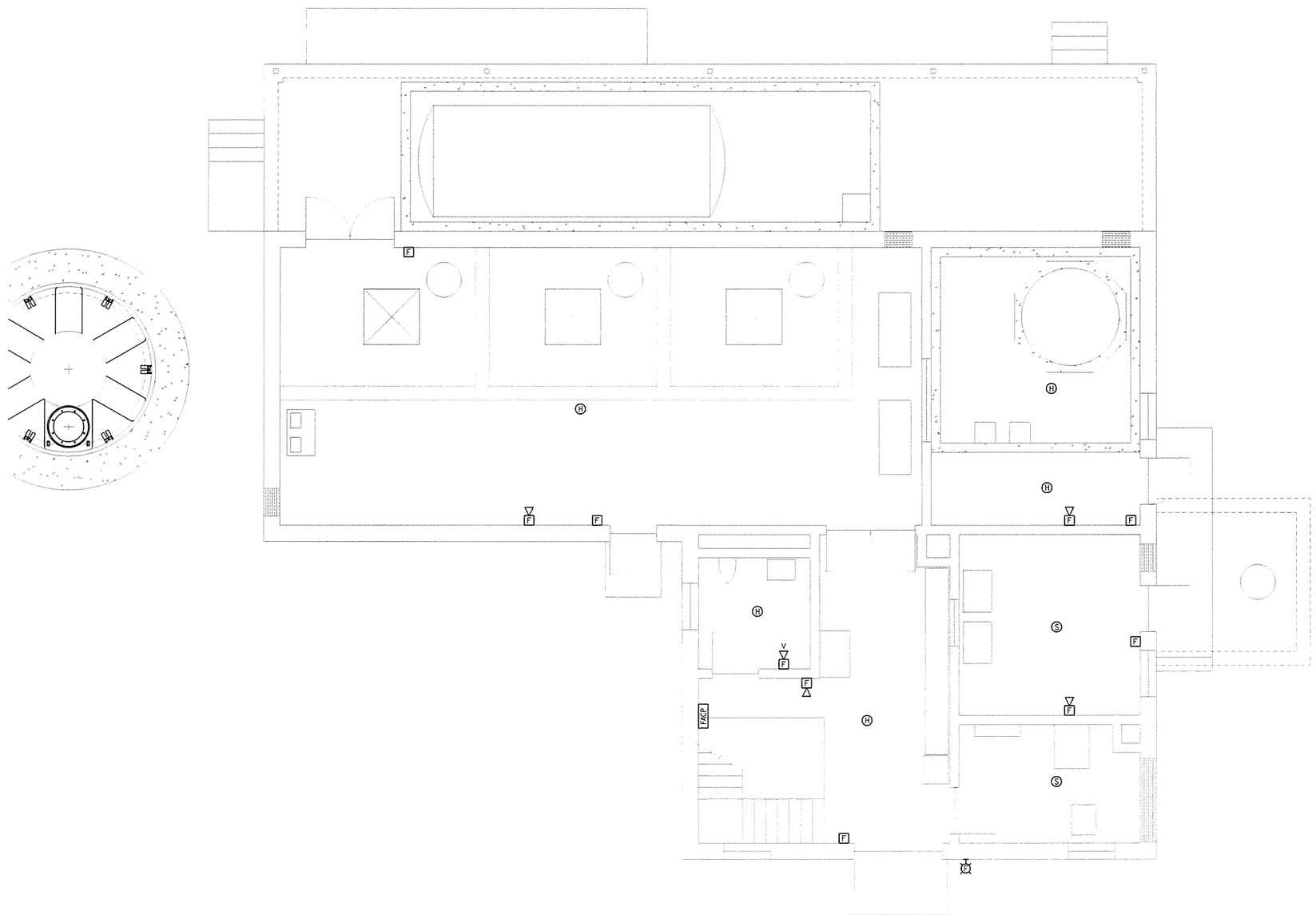
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

E-5.8

5/29/2020 11:06 AM W:\YEAR - 2018\18009-00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009-00 ELEC CHEMICAL HANDLING BUILDING.DWG (BETA STB BW STB)



FIRST FLOOR - PLAN

SCALE: 1/4"= 1'-0"

PREPARED BY

BETA

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REGISTERED PROFESSIONAL

NOT FOR CONSTRUCTION (CONCEPTUAL)

SUBCONSULTANT

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Mechanical/Electrical Engineers
150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical
Chemical
Handling Building
First Floor Fire
Alarm Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

AS SHOWN

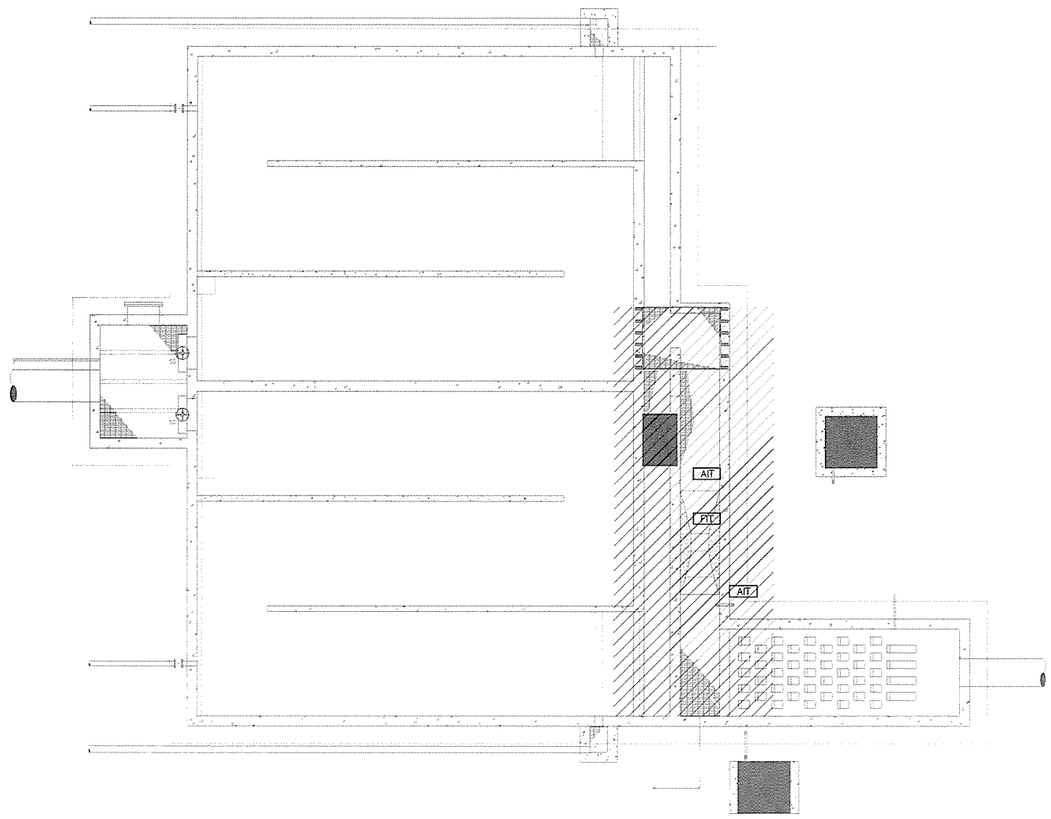
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

E-5.9

5/29/2020 11:05 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC CHEMICAL HANDLING BUILDING.DWG (BETA STB BW.STB)



PLAN
SCALE: 1/8"= 1'-0"

PREPARED BY

BETA
www.BETA-Inc.com

REGISTERED PROFESSIONAL

NOT FOR CONSTRUCTION (CONCEPTUAL)

SUBCONSULTANT

SAR ENGINEERING, INC.
Mechanical/Electrical Engineers
150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Demolition Chlorine Contact Tank Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

AS SHOWN

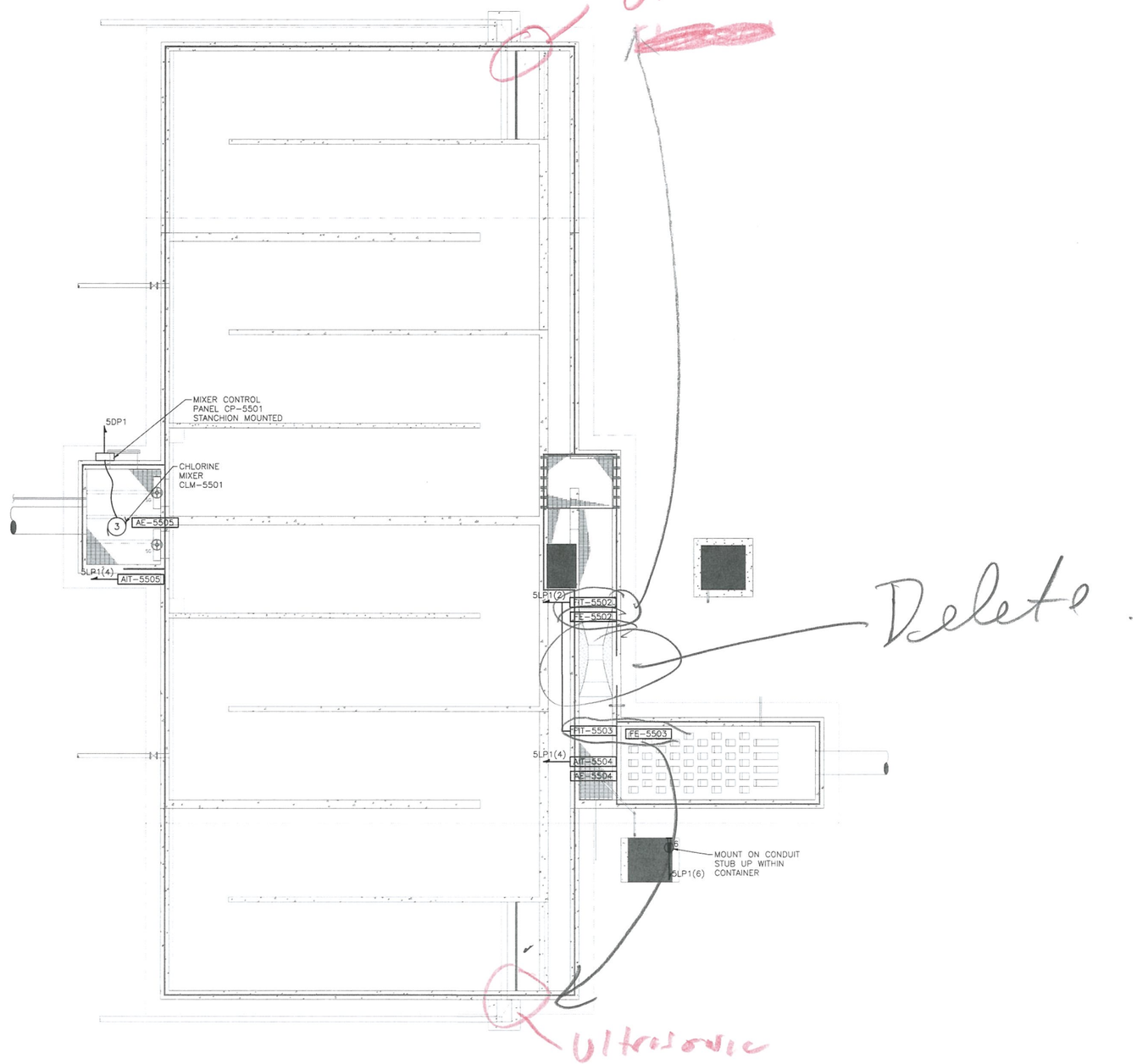
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

E-5.10

5/29/2020 11:33 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC CHLORINE CONTACT CHAMBER DWG (BETA STB BW.STB)



PLAN
SCALE: 1/8"= 1'-0"

PREPARED BY

BETA
www.BETA-Inc.com

REGISTERED PROFESSIONAL

NOT FOR
CONSTRUCTION
(CONCEPTUAL)

SUBCONSULTANT

SAR
ENGINEERING, INC.
Mechanical/Electrical Engineers
150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Chlorine
Contact Tank
Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

AS SHOWN

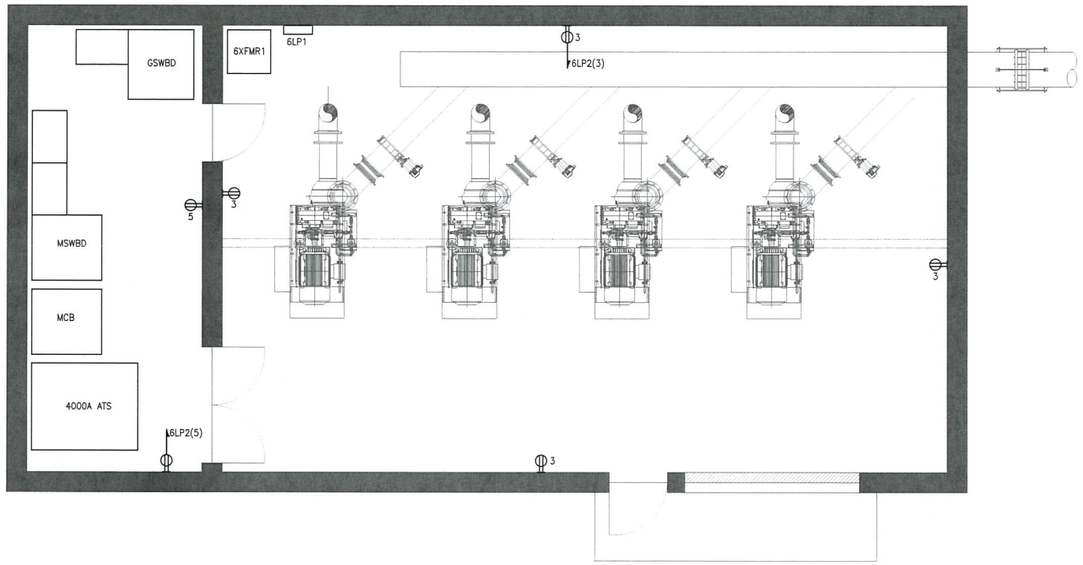
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

E-5.11

5/29/2020 2:36 PM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC CHLORINE CONTACT CHAMBER.DWG (BETA STB BW.STB)



PLAN
SCALE: 1/4"= 1'-0"

Phase 2

PREPARED BY

BETA
www.BETA-Inc.com

REGISTERED PROFESSIONAL

NOT FOR CONSTRUCTION (CONCEPTUAL)

SUBCONSULTANT

SAR ENGINEERING, INC.
Mechanical/Electrical Engineers
150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Blower Building Power Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

AS SHOWN

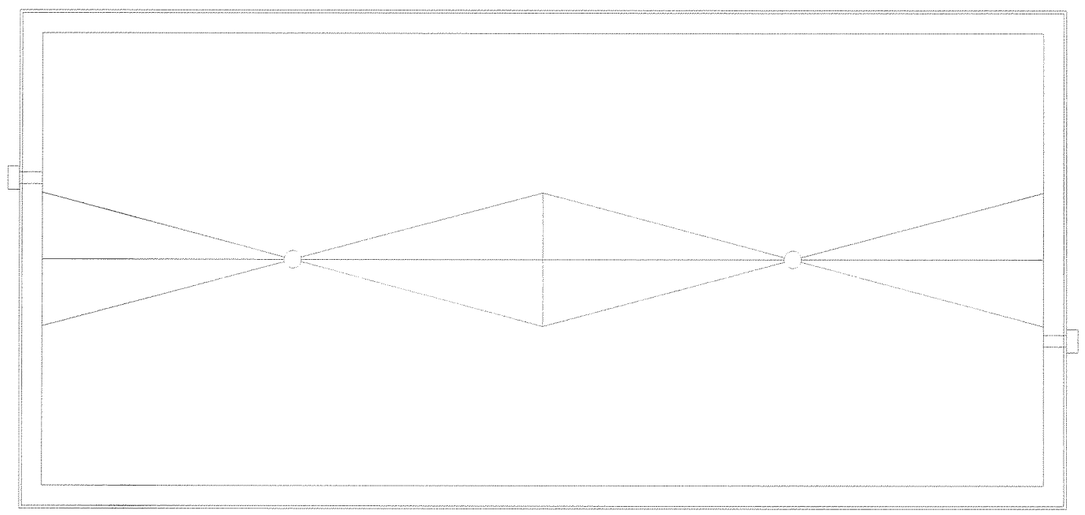
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

E-6.1

5/29/2020 11:07 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC NEW BLOWER BUILDING.DWG (BETA STB BW.STB)



PLAN
SCALE: 1/4"= 1'-0"

PREPARED BY

BETA
www.BETA-Inc.com

REGISTERED PROFESSIONAL

NOT FOR CONSTRUCTION (CONCEPTUAL)

SUBCONSULTANT

SAR ENGINEERING, INC.
Mechanical/Electrical Engineers
150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Blower Building Power Roof Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

AS SHOWN

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

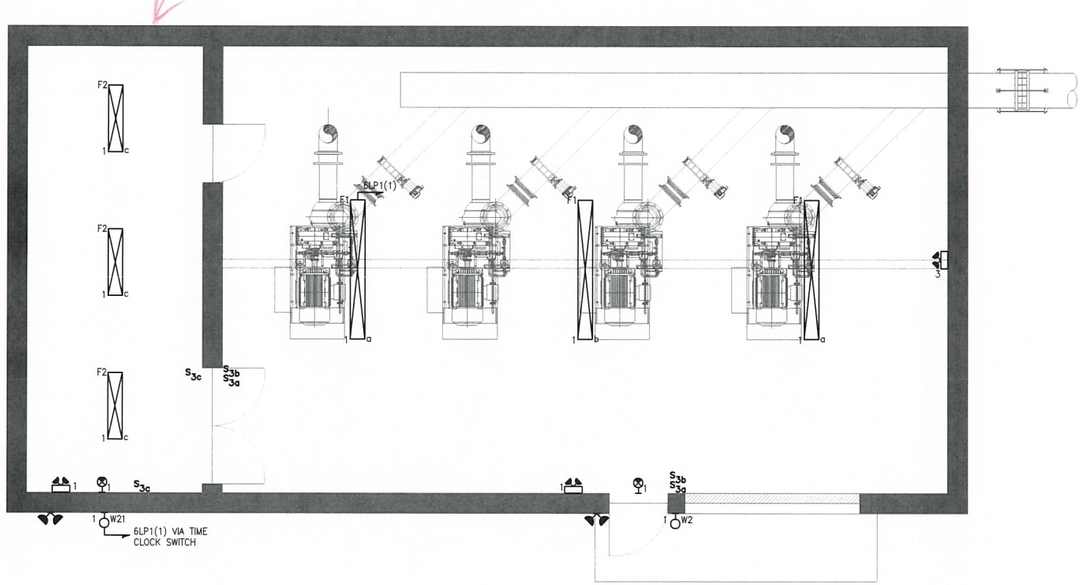
SHEET NO.

E-6.2

5/26/2020 11:07 AM W.VEAR - 3018\18009-00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009-00 ELEC NEW BLOWER BUILDING DWGS (BETA STB BW STB)

if this is necessary then do all lighting

Ph. 2



PLAN

SCALE: 1/4"= 1'-0"

PREPARED BY

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SUBCONSULTANT

SAR ENGINEERING, INC.

Mechanical/Electrical Engineers
150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Blower Building Lighting Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

AS SHOWN

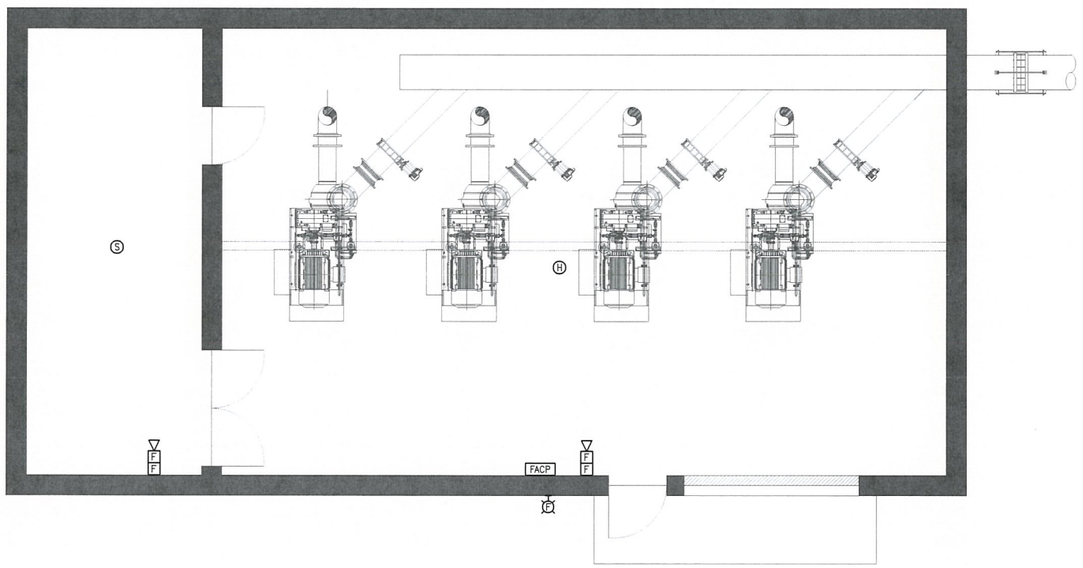
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

E-6.3

5/29/2020 11:06 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC NEW BLOWER BUILDING.DWG (BETA STB BW.STB)



PLAN
SCALE: 1/4"= 1'-0"

Ph. 2

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150 Grossman Drive, Suite 309
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617 328-9215
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PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Blower Building Fire Alarm Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

AS SHOWN

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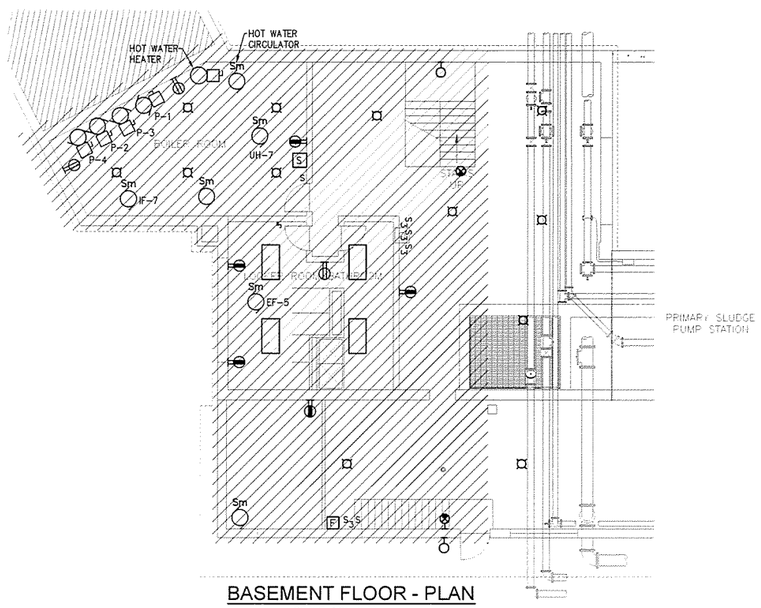
SHEET NO.

E-6.4

5/29/2020 11:08 AM M:\YEAR_2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC NEW BLOWER BUILDING.DWG (BETA STB BW.STB)



BASEMENT FLOOR - PLAN

SCALE: 1/8"= 1'-0"

PREPARED BY

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SUBCONSULTANT

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Mechanical/Electrical Engineers
150 Grossman Drive, Suite 309
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617 328-9215
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PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Demolition Control & Admin. Building Basement Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

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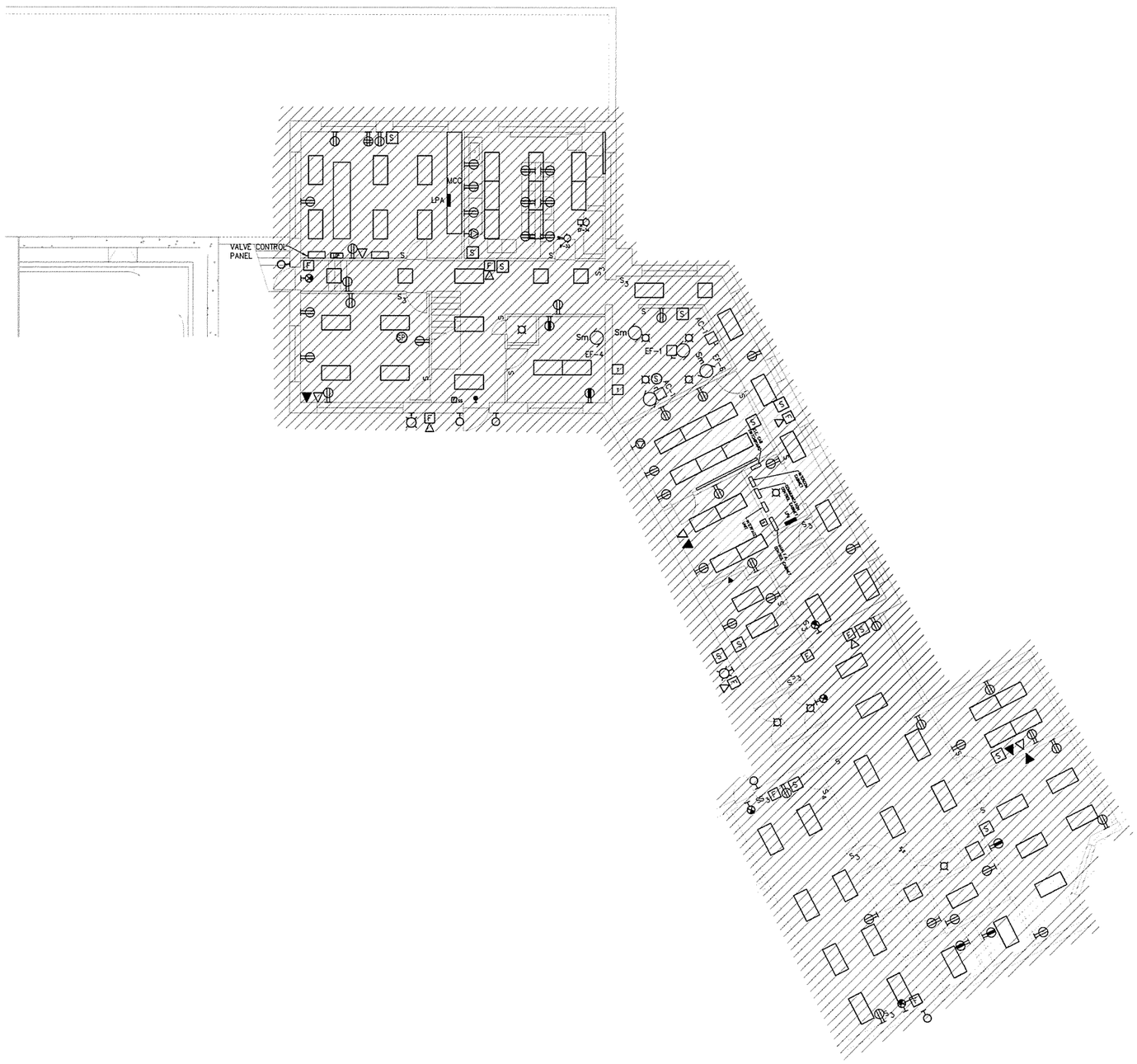
SHEET NO.

E-9.1

5/26/2020 11:16 AM W:\YEAR 2018\18099.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18099.00 ELEC CONTROL-ADMIN BUILDING.DWG (BETA STB BW.STB)



FIRST FLOOR - PLAN

SCALE: 1/8" = 1'-0"

PREPARED BY

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SAR ENGINEERING, INC.

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150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Demolition Control & Admin. Building First Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

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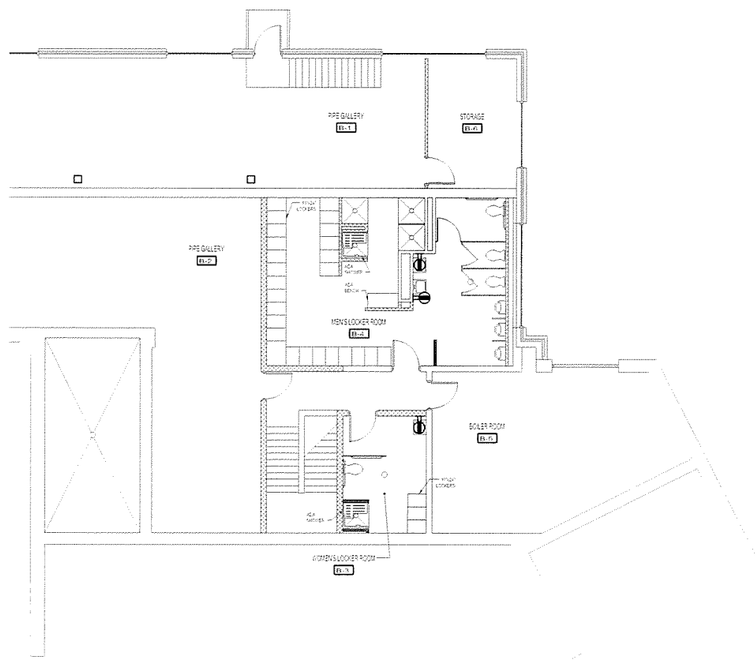
SHEET NO.

E-9.2

5/29/2020 11:16 AM W:\YEAR 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC CONTROL-ADMIN BUILDING.DWG (BETA STB BW STB)



BASEMENT FLOOR - PLAN

SCALE: 1/8"= 1'-0"

PREPARED BY

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web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Control & Admin. Building Basement Power Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

AS SHOWN

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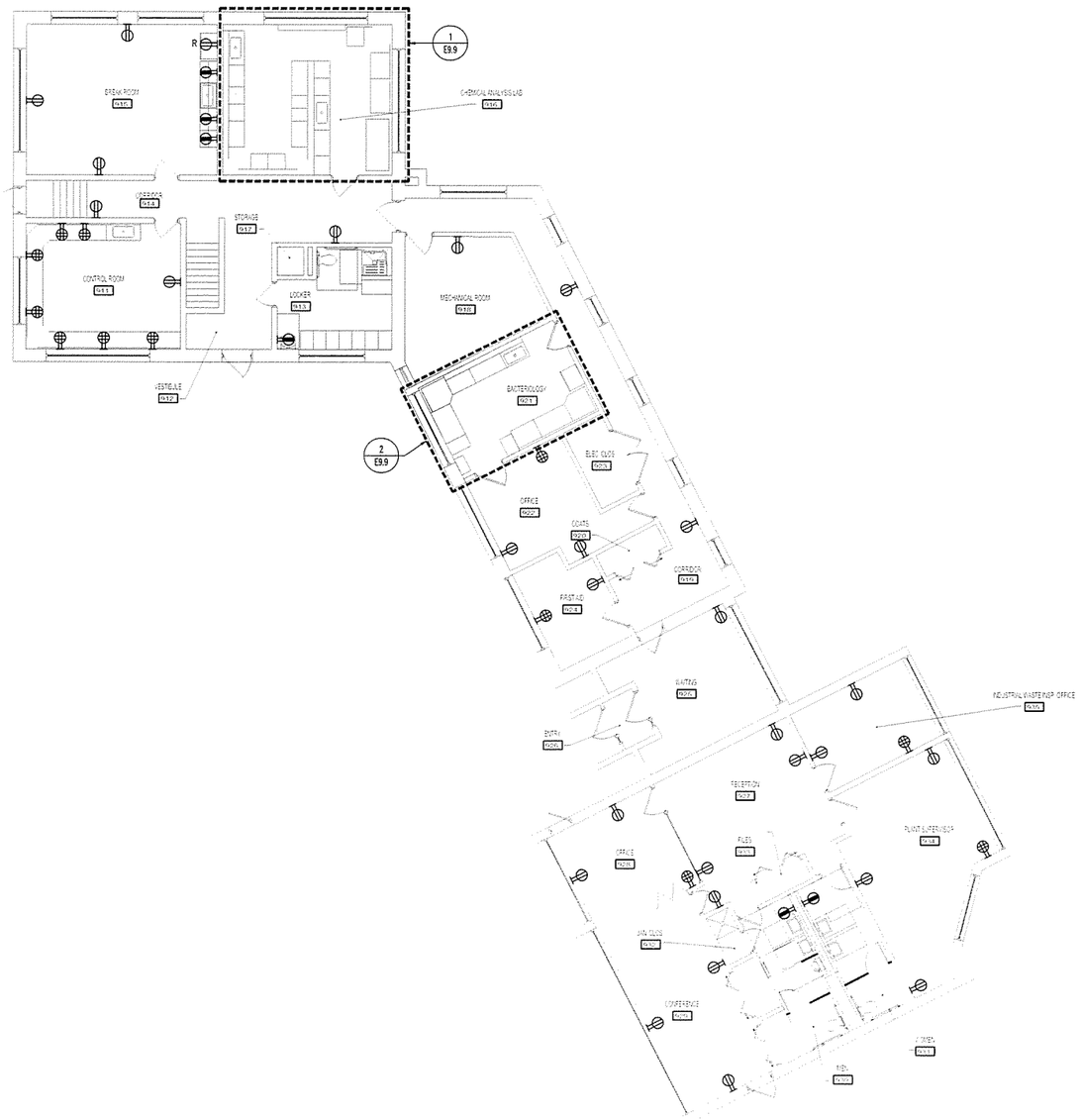
SHEET NO.

E-9.3

5/29/2020 11:18 AM WYVEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC CONTROL-ADMIN BUILDING.DWG (BETA STB B/W STB)



FIRST FLOOR - PLAN

SCALE: 1/8"= 1'-0"

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PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Control & Admin. Building First Floor Power Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

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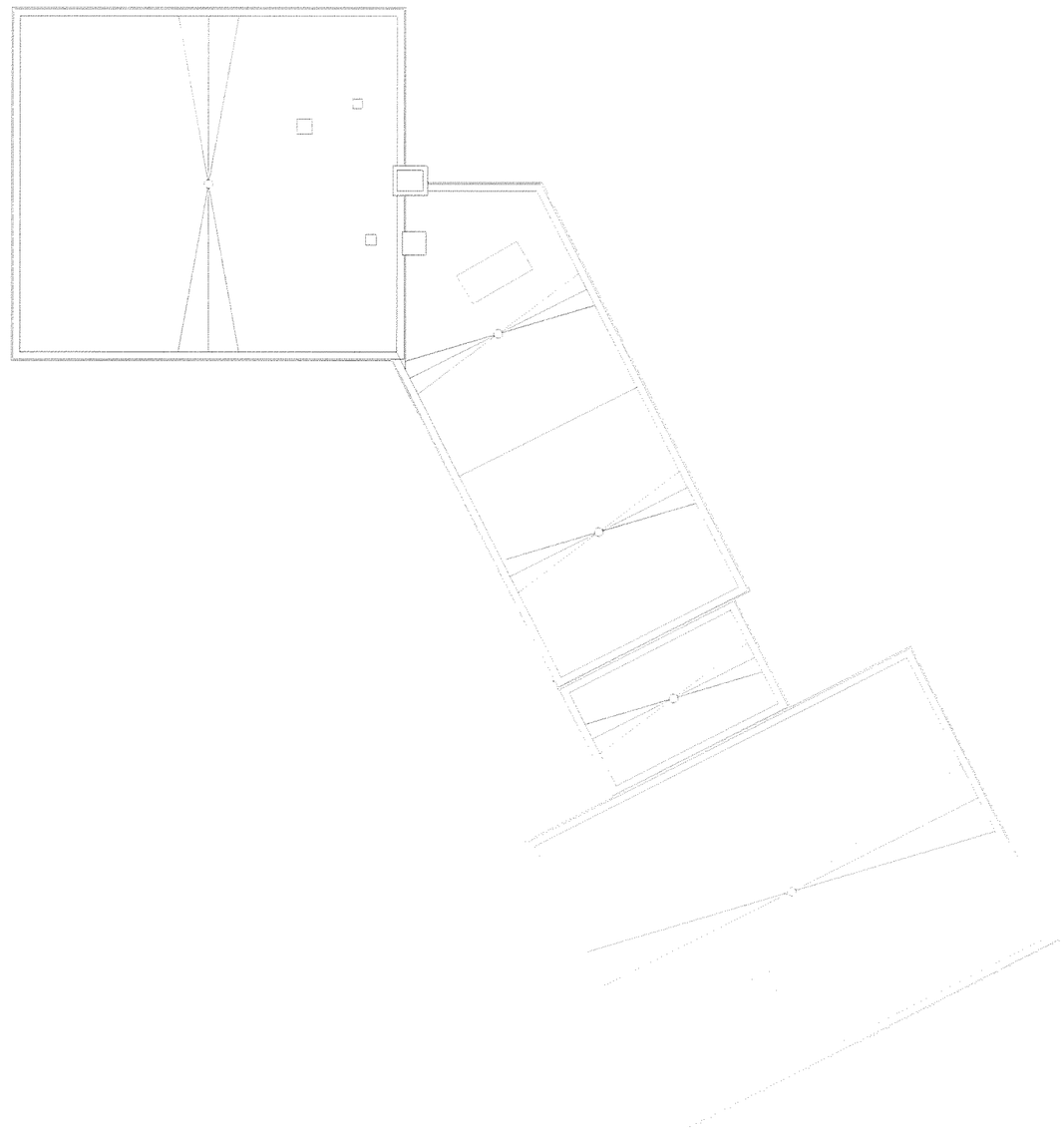
SHEET NO.

E-9.4

5/29/2020 11:18 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC CONTROL-ADMIN BUILDING.DWG (BETA STB BW.STB)



ROOF - PLAN
SCALE: 1/8"= 1'-0"

PREPARED BY

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PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Control & Admin. Building Roof Power Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

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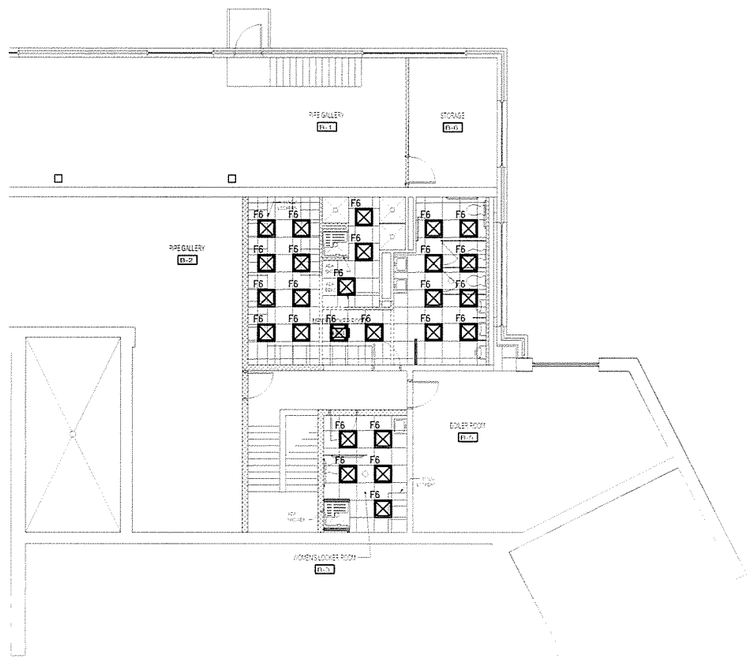
SHEET NO.

E-9.5

4/20/2020 11:19 AM M:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC CONTROL-ADMIN BUILDING DWG (BETA STB BW STB)



BASEMENT FLOOR - PLAN

SCALE: 1/8"= 1'-0"

PREPARED BY

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617 328-9215
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PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Control & Admin. Building Basement Lighting Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

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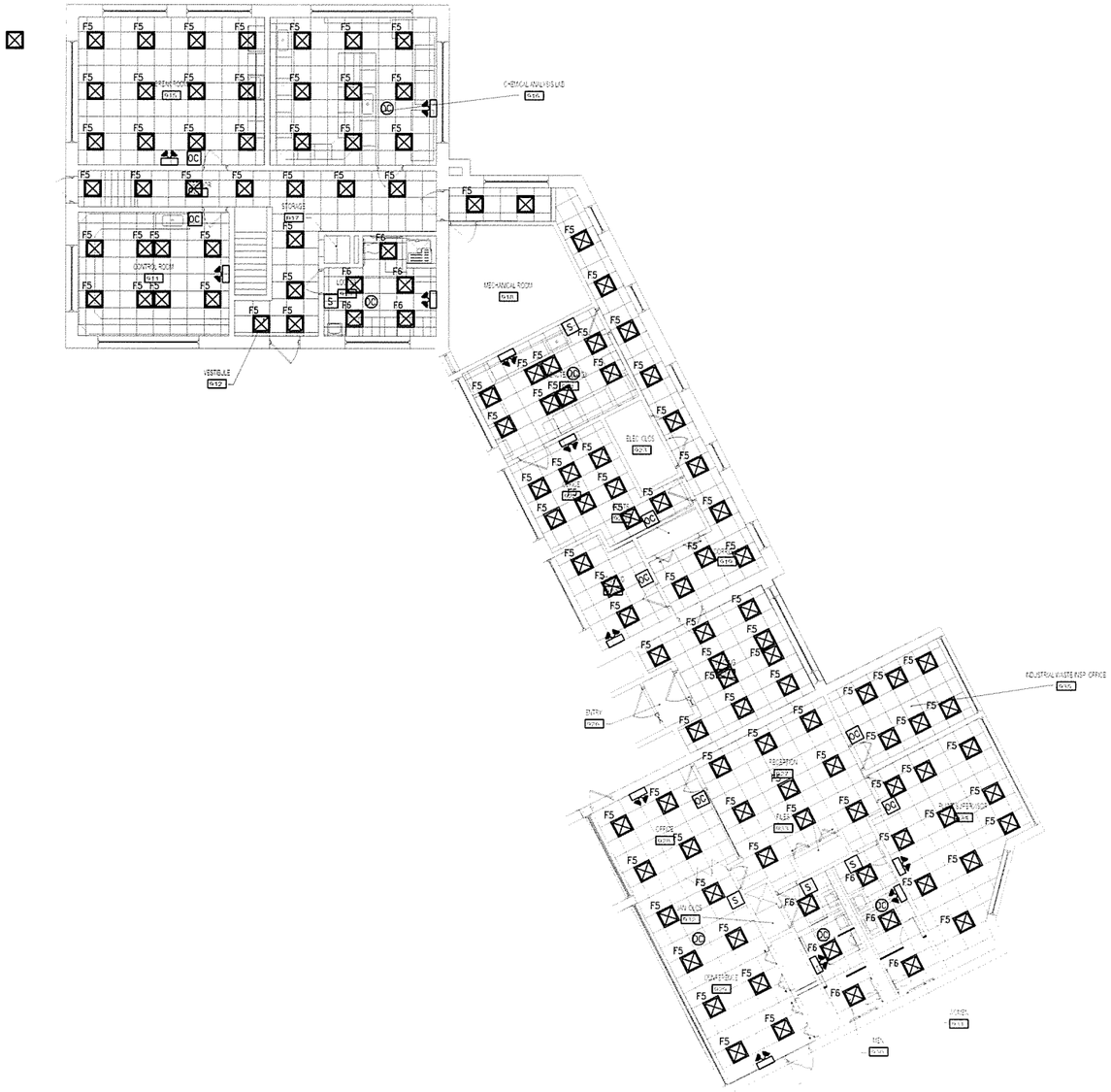
SHEET NO.

E-9.6

5/29/2020 11:19 AM YAVEAR 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC CONTROL ADMIN BUILDING.DWG (BETA STB BW.STB)



FIRST FLOOR - PLAN

SCALE 1/8"= 1'-0"

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150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Control & Admin. Building First Floor Lighting Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

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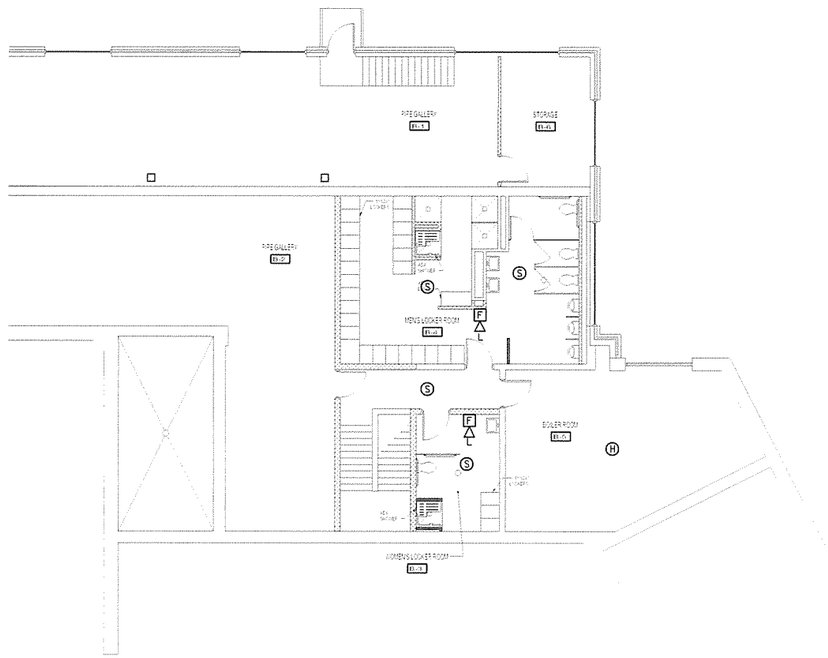
SHEET NO.

E-9.7

5/29/2020 11:16 AM W:\YEAR 2018\6050.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\6050.00 ELEC CONTROL-ADMIN BUILDING.DWG (BETA STB BW.STB)



BASEMENT FLOOR - PLAN

SCALE: 1/8"= 1'-0"

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Mechanical/Electrical Engineers
150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Control & Admin. Building Basement Fire Alarm Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

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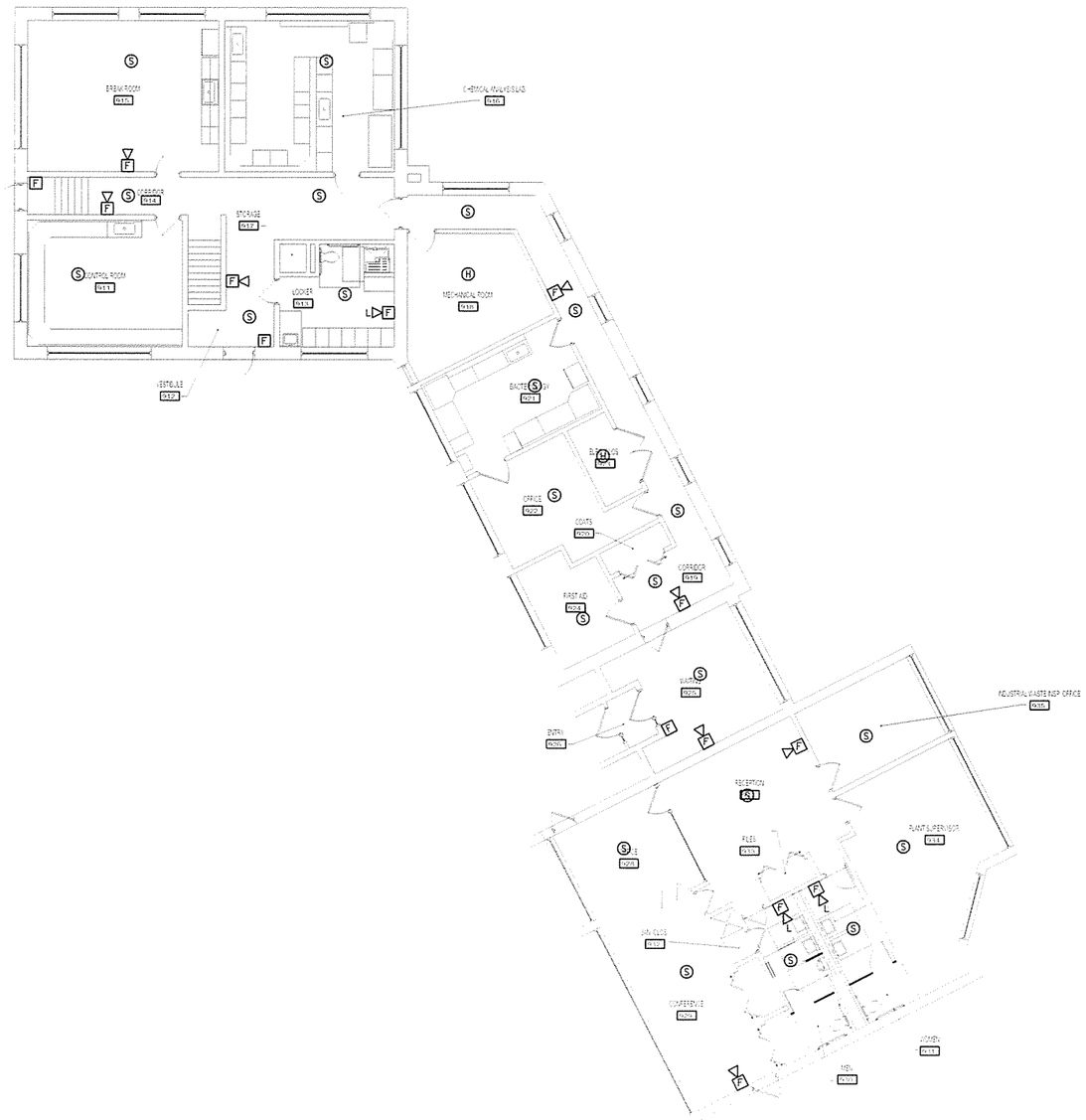
E-9.8

5/29/2020 11:19 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC CONTROL_ADMIN BUILDING.DWG (BETA STB BW.STB)



FIRST FLOOR - PLAN

SCALE: 1/8"= 1'-0"

PREPARED BY

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150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617.328.9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Control & Admin. Building First Floor Fire Alarm Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

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E-9.9

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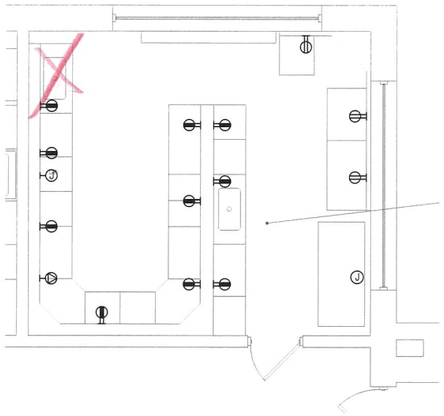
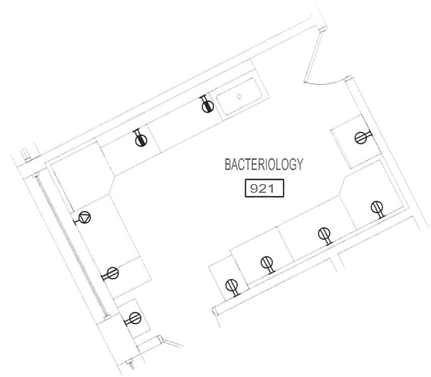
Refrigerator



CHEMICAL ANALYSIS LAB PART PLAN

SCALE: 1/4"= 1'-0"



BACTERIOLOGY PART PLAN

SCALE: 1/4"= 1'-0"

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617 328-9215
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PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Part Plans

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

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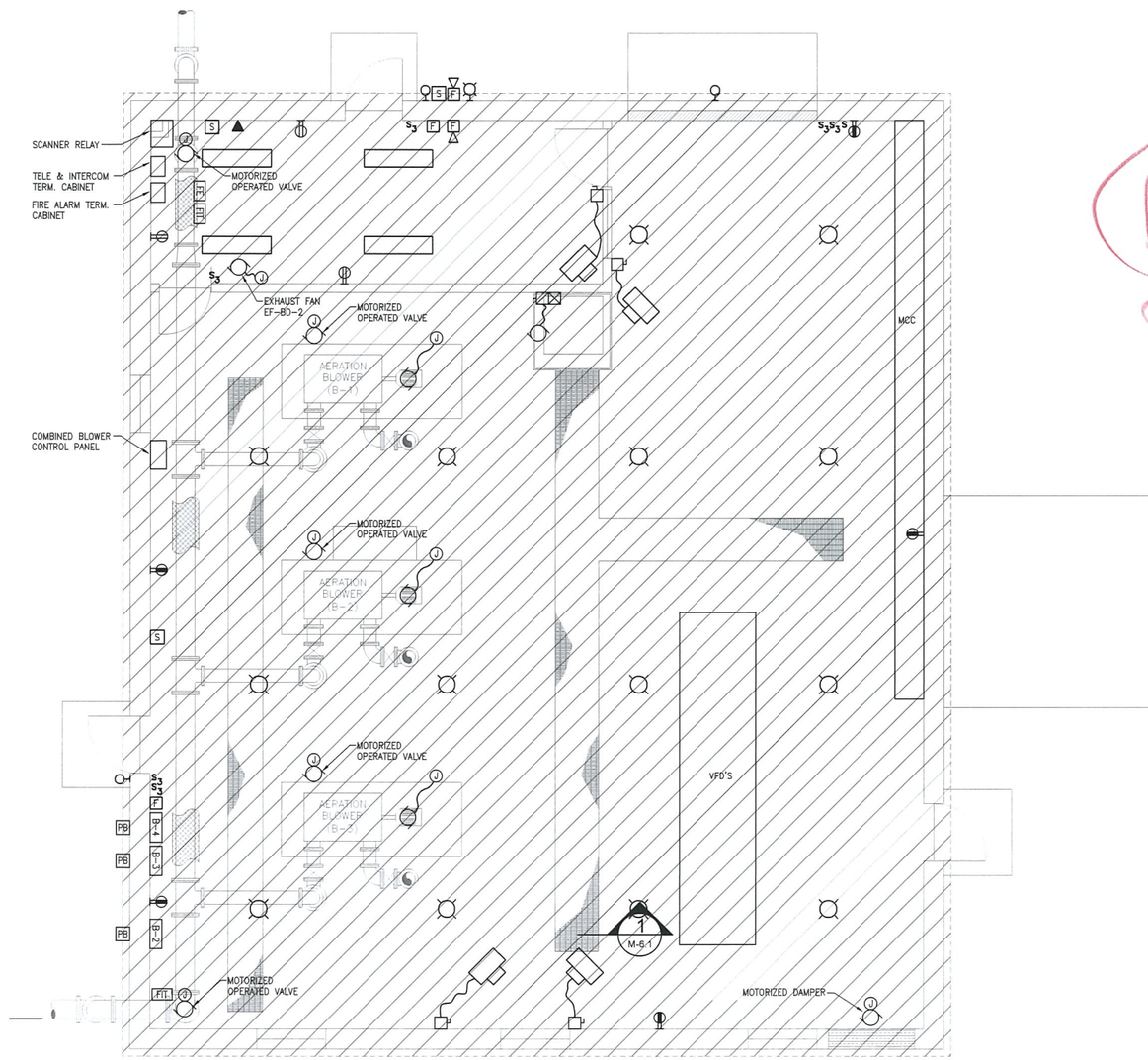
E-9.10

5/29/2020 11:20 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC CONTROL-ADMIN BUILDING.DWG (BETA STB BW.STB)



Phase 2

PLAN
SCALE: 1/4"= 1'-0"

PREPARED BY

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SUBCONSULTANT

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web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Demolition Blower Building Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

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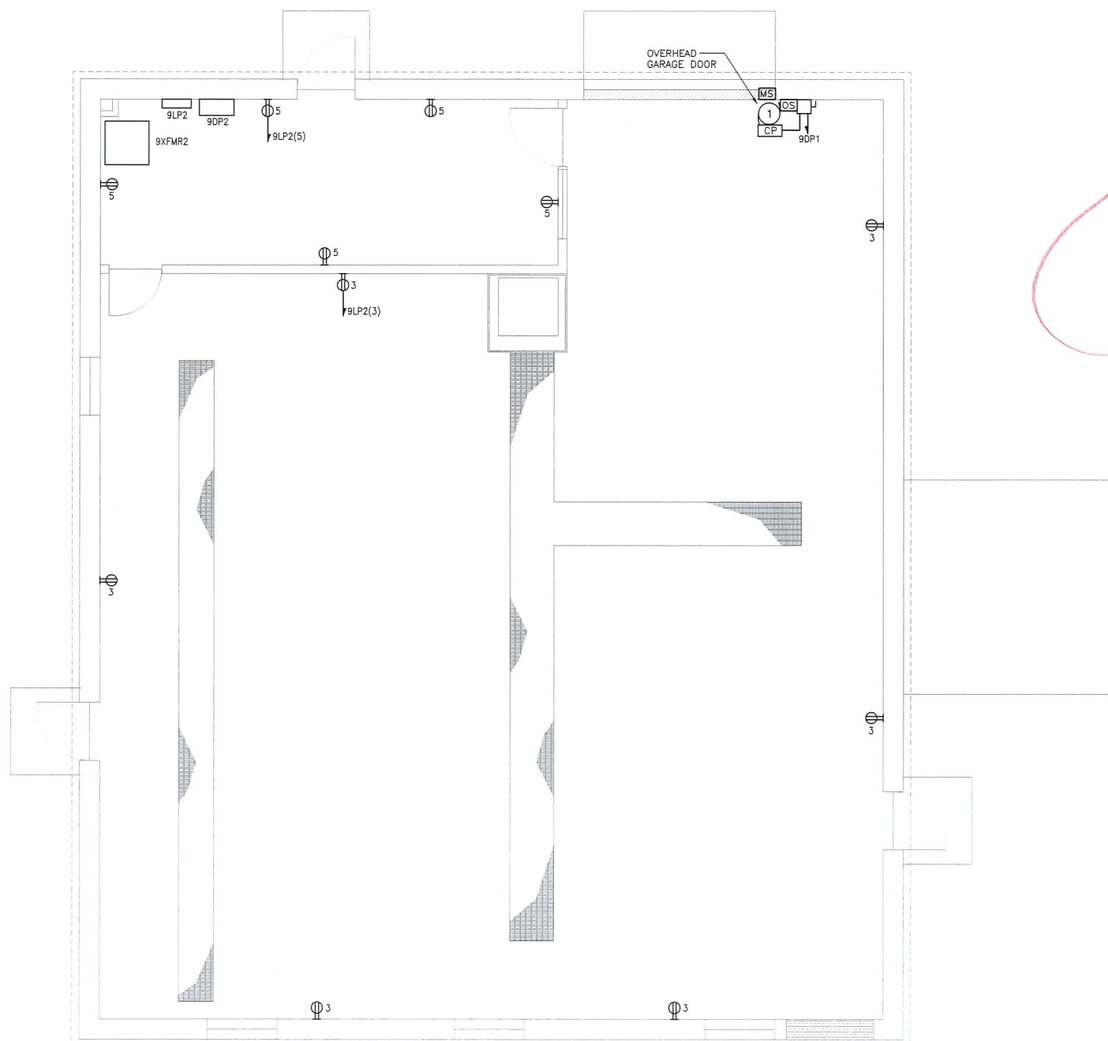
SHEET NO.

E-9.11

5/20/2020 11:23 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC OLD BLOWER BUILDING DWG (BETA STB BW STB)



Phase 2

PLAN

SCALE: 1/4"= 1'-0"

PREPARED BY

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REGISTERED PROFESSIONAL

NOT FOR CONSTRUCTION (CONCEPTUAL)

SUBCONSULTANT

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Mechanical/Electrical Engineers
150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Blower Building Power Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

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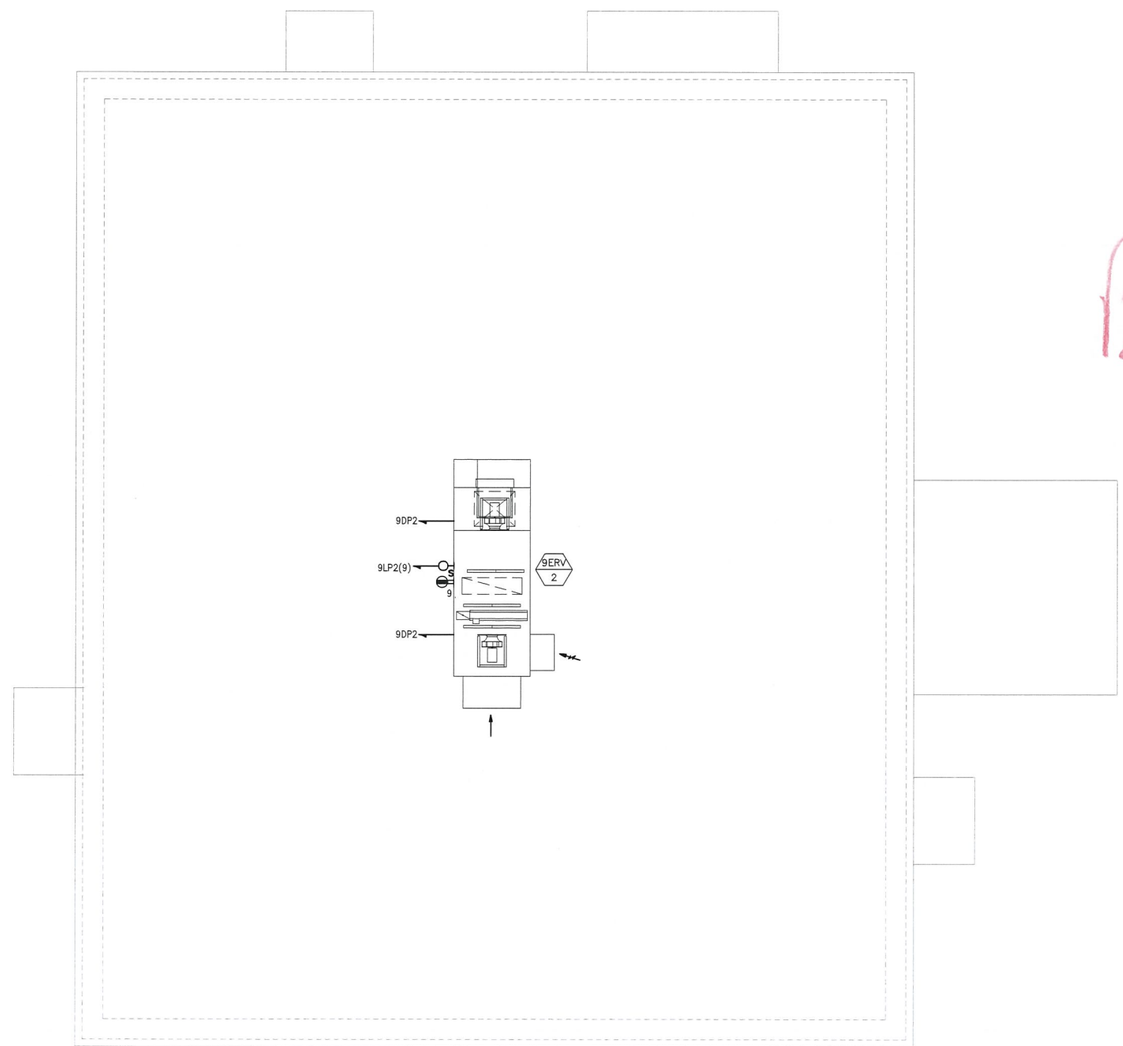
SHEET NO.

E-9.12

5/29/2020 11:23 AM W:\YEAR 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC OLD BLOWER BUILDING.DWG (BETA STB BW.STB)



PLAN
SCALE: 1/4"= 1'-0"

Place 2

PREPARED BY

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SUBCONSULTANT

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Mechanical/Electrical Engineers
150 Grossman Drive, Suite 309
Braintree, Massachusetts 02184
617 328-9215
web: www.sar.com

PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Blower Building Power Roof Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

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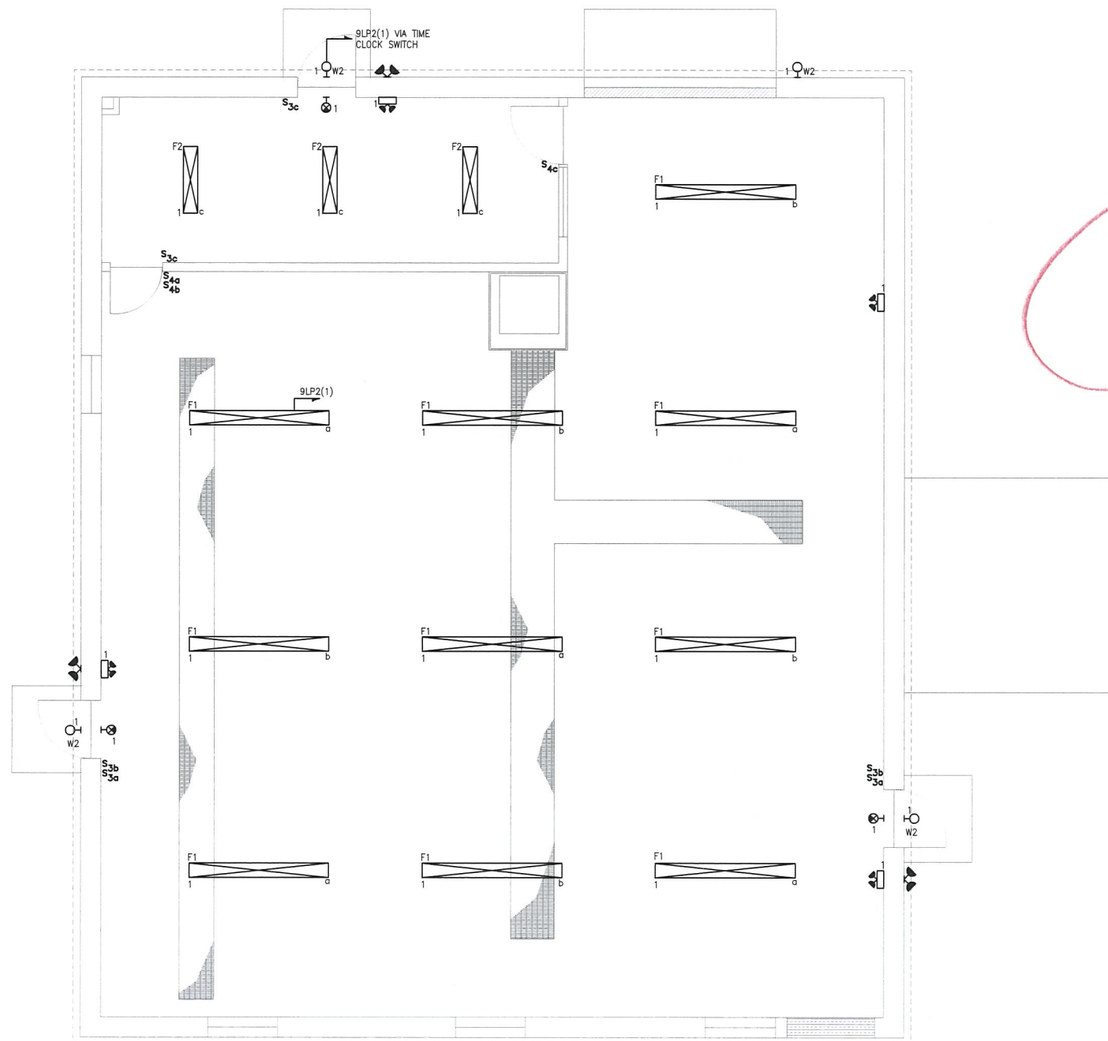
SHEET NO.

E-9.13

5/29/2020 11:25 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC OLD BLOWER BUILDING DWG (BETA STB BW STB)



Phase 2

PLAN

SCALE: 1/4"= 1'-0"

PREPARED BY

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SUBCONSULTANT

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PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Blower Building Lighting Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

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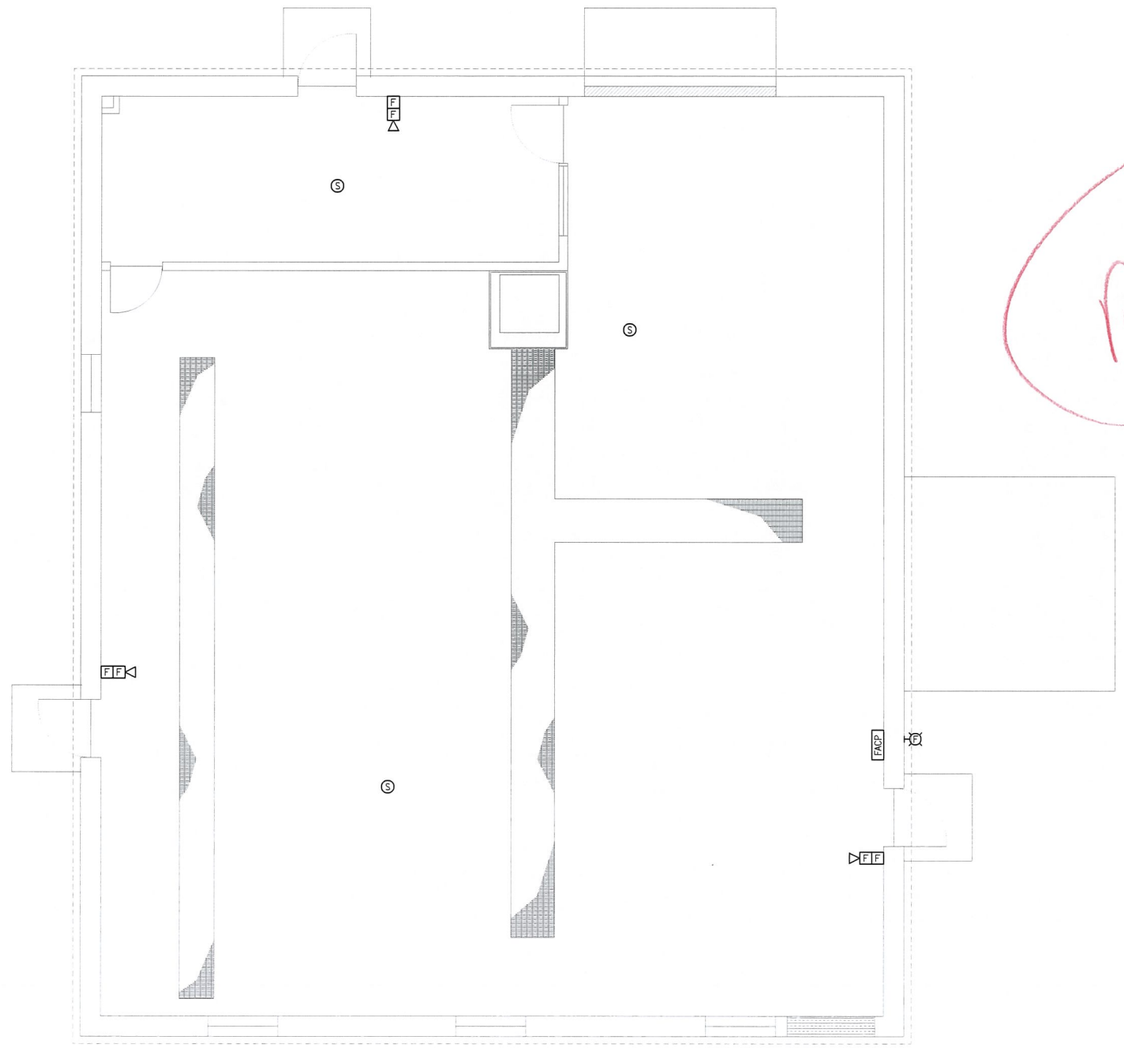
SHEET NO.

E-9.14

5/29/2020 11:20 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC OLD BLOWER BUILDING.DWG (BETA STB BW.STB)



Place 2

PLAN
SCALE: 1/4"= 1'-0"

PREPARED BY

BETA
www.BETA-Inc.com

REGISTERED PROFESSIONAL

NOT FOR CONSTRUCTION (CONCEPTUAL)

SUBCONSULTANT

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Mechanical/Electrical Engineers
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PROJECT

Taunton Wastewater Treatment Facility Improvements

Taunton, MA

TITLE

Electrical Blower Building Fire Alarm Plan

NO.	REVISIONS	DATE

DRAWN BY:	RLB
DESIGNED BY:	MC
CHECKED BY:	MC
ISSUE DATE:	04/15/2020
BETA JOB NO.:	6050

SCALE

AS SHOWN

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO.

E-9.15

5/29/2020 11:26 AM W:\YEAR - 2018\18009.00 - TAUNTON WWTF UPGRADES\ELECTRICAL DEPARTMENT\18009.00 ELEC OLD BLOWER BUILDING.DWG (BETA STB BW.STB)