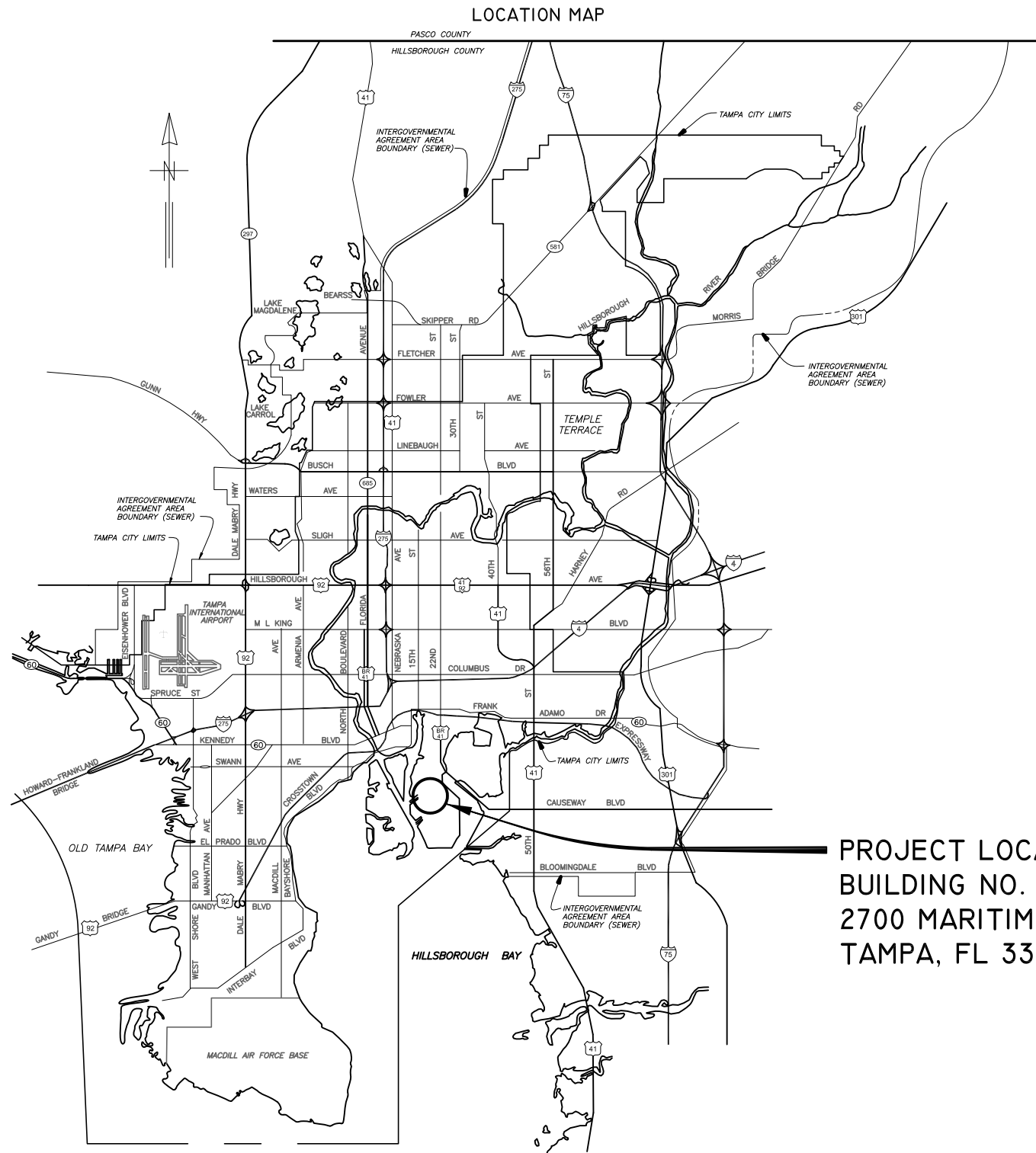


The Enclosed Document Is Provided For Your Convenience.

Please Email ALL Questions:
[MailTo:ContractAdministration@TampaGov.net](mailto:ContractAdministration@TampaGov.net)

City of Tampa
Contract Administration Department
306 E. Jackson St. #280A4N
Tampa, FL 33602
(813)274-8456



PROJECT LOCATION
 BUILDING NO. 59
 2700 MARITIME BLVD.
 TAMPA, FL 33605

PLANS

FOR

CITY OF TAMPA FLORIDA WASTEWATER DEPARTMENT

FOR

THE CONSTRUCTION OF THE

HOWARD F. CURREN AWTP SCREEN AND GRIT BUILDING No. 1 MCC 29 REPLACEMENT

CONTRACT: 19-C-00031

MARCH 2019



TRICON
 CONSULTING ENGINEERS

777 S. Harbour Island Blvd,
 Suite 350
 Tampa, FL 33602
 813.227.9190
 Certificate of Authorization No. 8363

| DRAWING INDEX | |
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| SHEET No. | SHEET TITLE |
| 1 | COVER SHEET |
| 2 | INDEX, SCHEDULES AND GENERAL NOTES |
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| E-2 | SCREEN AND GRIT BUILDING NO. 1 (059):PARTIAL PLAN - ELEV 15'-6" |
| E-3 | SCREEN AND GRIT BUILDING NO. 1 (059):PARTIAL PLAN - ELEV 31'-0" |
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| E-12 | MCC-29 CONDUIT AND CABLE SCHEDULE (SHEET 1 OF 3) |
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| E-14 | MCC-29 CONDUIT AND CABLE SCHEDULE (SHEET 3 OF 3) |

| GENERAL NOTES | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>THE WORK CONSIST OF FURNISHING ALL LABOR, MATERIALS, EQUIPMENT, AND TECHNICAL SUPERVISION TO INSTALL THE NEW MOTOR CONTROL CENTER 29 (MCC-29) AS INDICATED AND SHOWN. THE WORK INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING:</p> | |
| 1. | CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO PURCHASING EQUIPMENT OR COMMENCING CONSTRUCTION. |
| 2. | ALL WIRING SHALL BE IDENTIFIED WITH NUMBERS AT ALL TERMINALS AND ON WIRING DIAGRAMS. |
| 3. | FIELD VERIFY ALL EQUIPMENT LOCATIONS AND CONNECTIONS PRIOR TO COMMENCING CONSTRUCTION. |
| 4. | ALL NEW EQUIPMENT SHALL BE PERMANENTLY IDENTIFIED WITH A BLACK ON WHITE LAMACOID TAG ENGRAVED WITH MINIMUM 3/16 INCH LETTERING. |
| 5. | ALL CONDUCTOR LENGTHS SHALL BE CONTINUOUS. NO SPLICES OR CONDUCTOR TERMINATIONS SHALL BE PERMITTED UNLESS SPECIFICALLY DESIGNATED IN THE DRAWINGS. |
| 6. | ALL EXISTING INSTALLATIONS DENOTED ON THE DRAWINGS ARE FOR THE CONTRACTORS REFERENCE ONLY. ALL EXISTING INSTALLATIONS SHALL BE FIELD VERIFIED PRIOR TO SUBMITTING A BID AND PRIOR TO COMMENCING CONSTRUCTION. |
| 7. | REPLACE THE EXISTING MCC-29 AS SHOWN AND SPECIFIED. |
| 8. | ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE 6TH EDITION 2017, THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) SERIES 70/NATIONAL ELECTRICAL CODE (NEC) 2014 EDITION AND CHAPTER 5 OF THE CITY OF TAMPA CODE. |
| 9. | TEST AND START-UP REPORTS FOR THE PROPOSED MOTOR CONTROL CENTER SHALL BE INCLUDED IN THE OPERATION AND MAINTENANCE (O&M) MANUALS PROVIDED UNDER THIS CONTRACT. ALL CIRCUIT BREAKER SETTINGS SHALL BE TABULATED AND INCLUDED IN THE O&M MANUAL. |

| SCOPE OF WORK | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <p>THE WORK CONSISTS OF FURNISHING ALL LABOR, MATERIALS, EQUIPMENT, TRANSPORTATION, AND PERFORMING ALL OPERATIONS REQUIRED TO SUPPORT THE INSTALLATION AND COMMISSIONING OF THE ELECTRICAL PORTION OF THE HFC AWTP SCREEN AND GRIT BUILDING NO. 1, MCC-29 REPLACEMENT. THE WORK INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING:</p> | |
| <ol style="list-style-type: none"> SUBMIT WORKING DRAWINGS, PARTS SCHEDULES AND CUT-SHEETS TO THE ENGINEER. FURNISH AND INSTALL ALL EQUIPMENT AS SHOWN ON THE PLANS AND DESCRIBED IN THE SPECIFICATIONS. | |
| SPECIFICALLY: | |
| A. <u>DEMOLITION</u> | |
| <ol style="list-style-type: none"> PRIOR TO DEMOLITION, THE PROPOSED MOTOR CONTROL CENTER SHALL BE ON SITE AND READY FOR INSTALLATION. NO TEMPORARY POWER SHALL BE REQUIRED DURING THE REPLACEMENT OF MCC-29. VERIFY EXISTING POWER CONNECTIONS IN THE FIELD PRIOR TO COMMENCING DEMOLITION WORK. REMOVE EXISTING MCC-29 PREPARE EXISTING CONCRETE PAD AS REQUIRED TO INSTALL THE NEW MOTOR CONTROL CENTER. INSTALL MOTOR CONTROL CENTER AND MAKE CABLE CONNECTIONS AS SHOWN. REPAINT EXISTING CONDUITS AS INDICATED ON THE DRAWINGS. REPLACE EXISTING STRUTS, ALL THREAD ROD AND ASSOCIATED HARDWARE WITH 316 STAINLESS STEEL COMPONENTS. PERFORM A SHORT CIRCUIT AND COORDINATION STUDY AS DETAILED IN SECTION 16085 OF THESE SPECIFICATIONS. THE STUDY SHALL BE USED TO DETERMINE THE PROPER SETTINGS FOR THE MCC-29 CIRCUIT BREAKERS, ETC. THE SHORT CIRCUIT STUDY SHALL BE SIGNED, SEALED AND APPROVED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA. | |

| CONSTRUCTION SCHEDULING NOTES: | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <p>IN ORDER TO INSURE PROPER OPERATION OF THE HOWARD F. CURREN WASTEWATER TREATMENT PLANT IS MAINTAINED DURING THE REPLACEMENT OF MCC-29, THE CONTRACTOR SHALL BE REQUIRED TO ADHERE TO THE FOLLOWING SCHEDULING REQUIREMENTS:</p> | |
| <ol style="list-style-type: none"> THE FACILITY MAY ONLY BE TAKEN OUT OF SERVICE AFTER DECEMBER 1, 2019 AND THE PROJECT MUST BE COMPLETED BY MAY 2020. ALL EQUIPMENT SHALL BE APPROVED AND DELIVERED TO THE SITE BEFORE THE FACILITY CAN BE TAKEN OUT OF SERVICE TO START CONSTRUCTION. ADVANCE NOTICE OF THE FACILITY SHUT DOWN IS REQUIRED. IF THE PROJECT NEEDS TO BE DELAYED TO ALLOW CONSTRUCTION TO START ON OR AFTER DECEMBER 1, 2019, THE CONTRACTOR WILL BE GRANTED ADDITIONAL CONTRACT TIME BUT NO MONETARY COMPENSATION. | |



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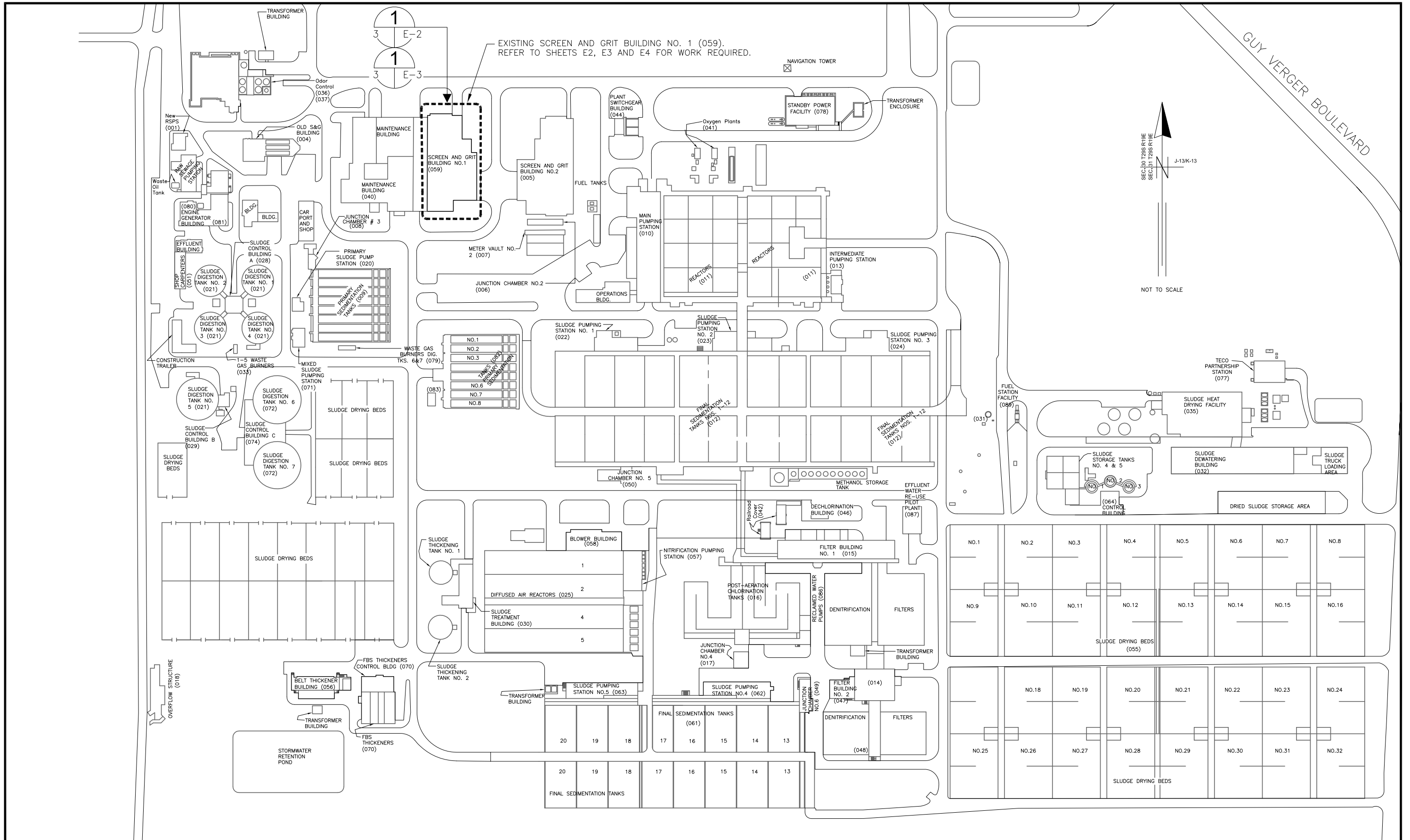
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| DRAWN | JLH | | | | | | |
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| DATE | 3/2019 | No. | DATE | BY | APP | REVISION DESCRIPTION | |

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**SCREEN & GRIT BUILDING No. 1
MCC 29 REPLACEMENT**

**INDEX, SCHEDULES AND
GENERAL NOTES**

| SHEET NUMBER | |
|--------------------------------|--------------------|
| 2 | |
| TIMOTHY THOMAS, P.E. No. 47079 | FILE: 231803742E01 |



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**HOWARD F. CURREN AWTP
SITE PLAN**

| | |
|--------------------------------|-----------------|
| SHEET NUMBER | 3 |
| TIMOTHY THOMAS, P.E. No. 47079 | FILE: 231803742 |

CONDUIT RUN EXPOSED
 CONDUIT RUN CONCEALED UNDERGROUND
 CONDUIT RUN CONCEALED IN FLOOR OR SLAB
 GROUNDING ELECTRODE CONDUCTOR

CONDUIT STUB OUT AND CAP

GROUND ROD

JUNCTION BOX

JUNCTION BOX WITH FLEXIBLE CONNECTION

TRANSFORMER, 480V INDICATED PRIMARY VOLTAGE, 120/240V INDICATES SECONDARY VOLTAGE, 15 KVA REPRESENTS POWER RATING, AND 1* INDICATES SINGLE PHASE (THREE PHASE IF NOT INDICATED)

THERMAL MAGNETIC CIRCUIT BREAKER WITH NUMBER OF POLES AND AMPERE RATING

COMBINATION MAGNETIC STARTER WITH CONTROL POWER TRANSFORMER (SIZED FOR LOAD). LETTERS INDICATE TYPE:
 N - NON-REVERSING
 R - REVERSING
 2S - TWO-SPEED
 C - CONTACTOR
 SS - SOLID STATE SOFT START

| XXX | XXX_DEVICE | DESCRIPTION |
|------|------------|------------------------------------|
| HLS | HLS | HIGH LEVEL SWITCH |
| HOA | HOA | HAND-OFF-AUTO |
| LD | LD | LEAK DETECTION |
| LLS | LLS | LOW LEVEL SWITCH |
| LOR | LOR | LOCAL-OFF-REMOTE |
| PB | PB | PUSH BUTTON |
| RTU | RTU | REMOTE TERMINAL UNIT |
| SS | SS | SOFT STARTER |
| SS/B | SS/B | SOFT START OR BYPASS |
| TCP | TCP | TEMPERATURE CONTROL PANEL |
| TS | TS | TEMPERATURE SWITCH |
| TVSS | TVSS | TRANSIENT VOLTAGE SURGE SUPPRESSOR |
| ZS | ZS | POSITION SENSOR (LIMIT SWITCH) |

FUSE

MOTOR

THERMAL OVERLOAD

UTILITY METER

TRANSFER SWITCH

ELECTRIC PANELBOARD

DISCONNECT OR SAFETY SWITCH

FLOAT SWITCH. OPENS ON LOW LEVEL.

FLOAT SWITCH. CLOSSES ON LOW LEVEL.

NORMALLY OPEN (N.O.) CONTACT

NORMALLY CLOSED (N.C.) CONTACT

GROUND CONNECTION

INDICATING PILOT LIGHT LETTER INDICATES COLOR OF LENS
 R = RED
 A = AMBER

DISCONNECT OR TOGGLE SWITCH

NORMALLY OPEN MOMENTARY CIRCUIT CLOSING PUSH-BUTTON SWITCH. SPRING OPEN. NUMBER OF ELECTRICAL CONTACTS ON SWITCH SHOWN ON CONTROL SCHEMATIC

NORMALLY CLOSED MOMENTARY CIRCUIT OPENING PUSH-BUTTON SWITCH. SPRING CLOSE. NUMBER OF ELECTRICAL CONTACTS ON SWITCH SHOWN ON CONTROL SCHEMATIC

LIMIT SWITCH NORMALLY CLOSED CONTACT. CONTACT OPENS WHEN ACTUATED

TORQUE SWITCH NORMALLY CLOSED CONTACT. CONTACT OPENS WHEN ACTUATED

PUMP THERMAL SENSOR

50/51/51G SOLID STATE TRIP UNIT WITH FUNCTIONS NOTED:
 50 INSTANTANEOUS TRIP
 51 TIME DELAY TRIP
 51G GROUND FAULT TRIP

ABBREVIATIONS:

| | |
|------|------------------------------|
| 4C | 4 CONDUCTOR |
| A | AMPS |
| AF | AMPERE FRAME |
| AM | AMMETER |
| AT | AMPERE TRIP |
| AFF | ABOVE FINISHED FLOOR |
| AFG | ABOVE FINISHED GRADE |
| ATL | ACROSS-THE-LINE |
| C | CONDUIT |
| CLF | CURRENT LIMITING FUSE |
| CT | CURRENT TRANSFORMER |
| CU | COPPER |
| EO | ELECTRICALLY OPERATED |
| ELEC | ELECTRICAL |
| ETM | ELAPSED TIME METER |
| EX | EXISTING |
| EXP | EXPLOSION PROOF |
| FU | FUSE |
| GFI | GROUND FAULT INTERRUPTER |
| GND | GROUNDING CONDUCTOR |
| HP | HORSEPOWER |
| HZ | HERTZ |
| IG | ISOLATED GROUND |
| KI | KIRK-KEY INTERLOCK |
| KVA | KILOVOLT AMPERES |
| KW | KILOWATTS |
| MAX | MAXIMUM |
| MIN | MINIMUM |
| N/A | NOT APPLICABLE |
| NC | NORMALLY CLOSED |
| NO | NORMALLY OPEN |
| PB | PUSHBUTTON |
| PH | PHASE |
| PM | POWER MONITOR |
| RECP | RECEPTACLE |
| RPM | REVOLUTIONS PER MINUTE |
| RTU | REMOTE TERMINAL UNIT |
| RVSS | REDUCED VOLTAGE SOFT STARTER |
| SPD | SURGE PROTECTION DEVICE |
| TYP | TYPICAL |
| V | VOLTS |
| W | WIRE |
| WP | WEATHERPROOF |

SINGLE POLE SWITCH

ROLL UP DOOR CONTROL PANEL

JUNCTION BOX

PULL BOX

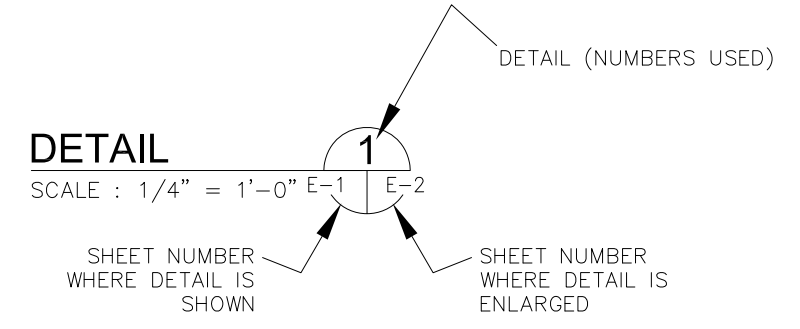
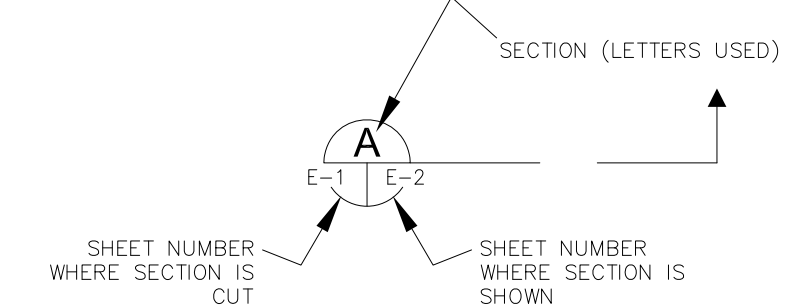
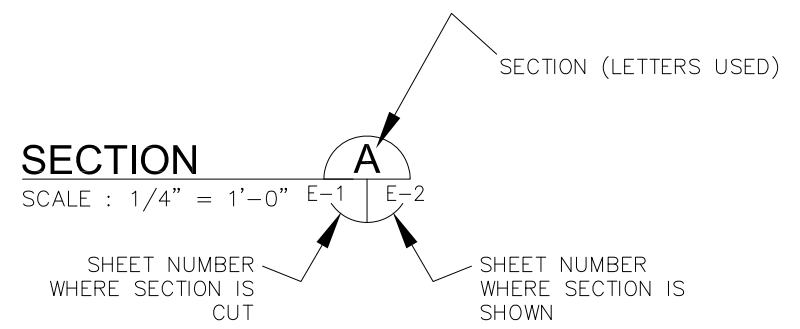
EMERGENCY LIGHT

ON/OFF SWITCH IN SINGLE DEVICE JUNCTION BOX
 'L' INDICATES ON/OFF SWITCH INCLUDES MECHANICAL LOCKOUT DEVICE

ON/OFF SWITCH WITH TEST PUSHBUTTON IN TWO DEVICE JUNCTION BOX
 'L' INDICATES ON/OFF SWITCH INCLUDES MECHANICAL LOCKOUT DEVICE

TEST/ON/OFF PUSHBUTTON STATION IN THREE DEVICE JUNCTION BOX
 'L' INDICATES STATION INCLUDES MECHANICAL LOCKOUT DEVICE

EXAMPLE OF SECTION CUT AND DETAIL



EXISTING WELDING OUTLET

PRESSURE SWITCH

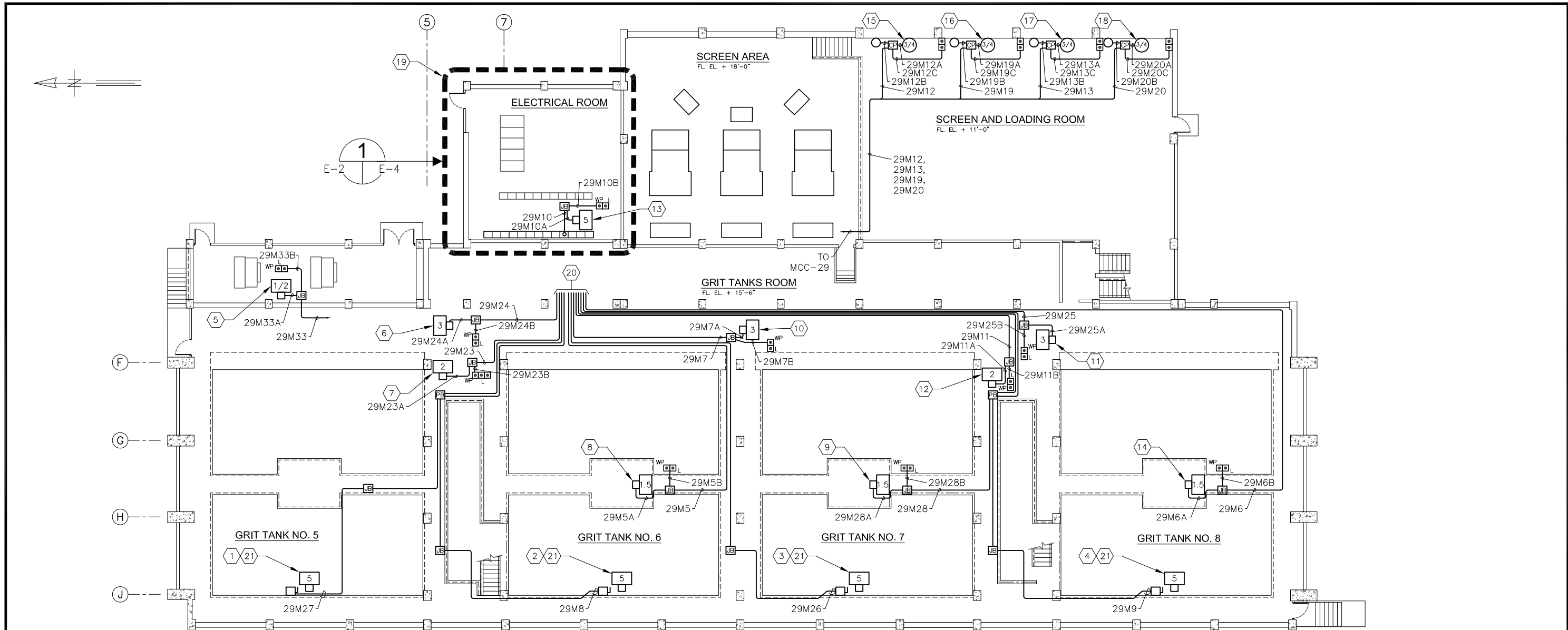
PRESSURE SWITCH

SEAL WATER SOLENOID

SEAL WATER SOLENOID

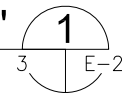
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| SCALE |
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| AS SHOWN |



**SCREEN AND GRIT BUILDING NO. 1 (059):
PARTIAL FLOOR PLAN - ELEVATION 15'-6"**

SCALE : 1" = 10'-0"



KEYED NOTES:

- | | | | |
|----------------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------|--------------------------------------------------------------------------|
| ① EXISTING 480V, 3 ϕ , 5 HP EXHAUST FAN 'SG-EFA' TO REMAIN. | ⑦ EXISTING 480V, 3 ϕ , 2 HP SUPPLY FAN 'SG-S-10' TO REMAIN. | ⑫ EXISTING 480V, 3 ϕ , 2 HP SUPPLY FAN 'SG-S-11' TO REMAIN. | ⑰ EXISTING 480V, 3 ϕ , 3/4 HP ROLL UP DOOR 'SG-RD-7' TO REMAIN. |
| ② EXISTING 480V, 3 ϕ , 5 HP EXHAUST FAN 'SG-EFB' TO REMAIN. | ⑧ EXISTING 480V, 3 ϕ , 1-1/2 HP SUPPLY FAN 'SG-S-13' TO REMAIN. | ⑬ EXISTING 480V, 3 ϕ , 5 HP SUPPLY FAN 'SG-S-3' TO REMAIN. | ⑱ EXISTING 480V, 3 ϕ , 3/4 HP ROLL UP DOOR 'SG-RD-7' TO REMAIN. |
| ③ EXISTING 480V, 3 ϕ , 5 HP EXHAUST FAN 'SG-EFC' TO REMAIN. | ⑨ EXISTING 480V, 3 ϕ , 1-1/2 HP SUPPLY FAN 'SG-S-14' TO REMAIN. | ⑭ EXISTING 480V, 3 ϕ , 1-1/2 HP SUPPLY FAN 'SG-S-15' TO REMAIN. | ⑲ EXISTING ELECTRICAL ROOM. REFER TO FLOOR PLAN ON SHEET E4 FOR DETAILS. |
| ④ EXISTING 480V, 3 ϕ , 5 HP EXHAUST FAN 'SG-EFD' TO REMAIN. | ⑩ EXISTING 480V, 3 ϕ , 3 HP SUPPLY FAN 'SG-S-5' TO REMAIN. | ⑮ EXISTING 480V, 3 ϕ , 3/4 HP ROLL UP DOOR 'SG-RD-5' TO REMAIN. | ⑳ CONTINUED TO MCC-29. |
| ⑤ EXISTING 480V, 3 ϕ , 1/2 HP ROOF EXHAUST FAN 'SG-REF-24' TO REMAIN. | ⑪ EXISTING 480V, 3 ϕ , 3 HP SUPPLY FAN 'SG-S-6' TO REMAIN. | ⑯ EXISTING 480V, 3 ϕ , 3/4 HP ROLL UP DOOR 'SG-RD-6' TO REMAIN. | ㉑ MOUNTED ON ROOF AT ELEVATION 32'-0". |
| ⑥ EXISTING 480V, 3 ϕ , 3 HP SUPPLY FAN 'SG-S-4' TO REMAIN. | | | |



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| JOB No. | 231803742 | | | | | | | |
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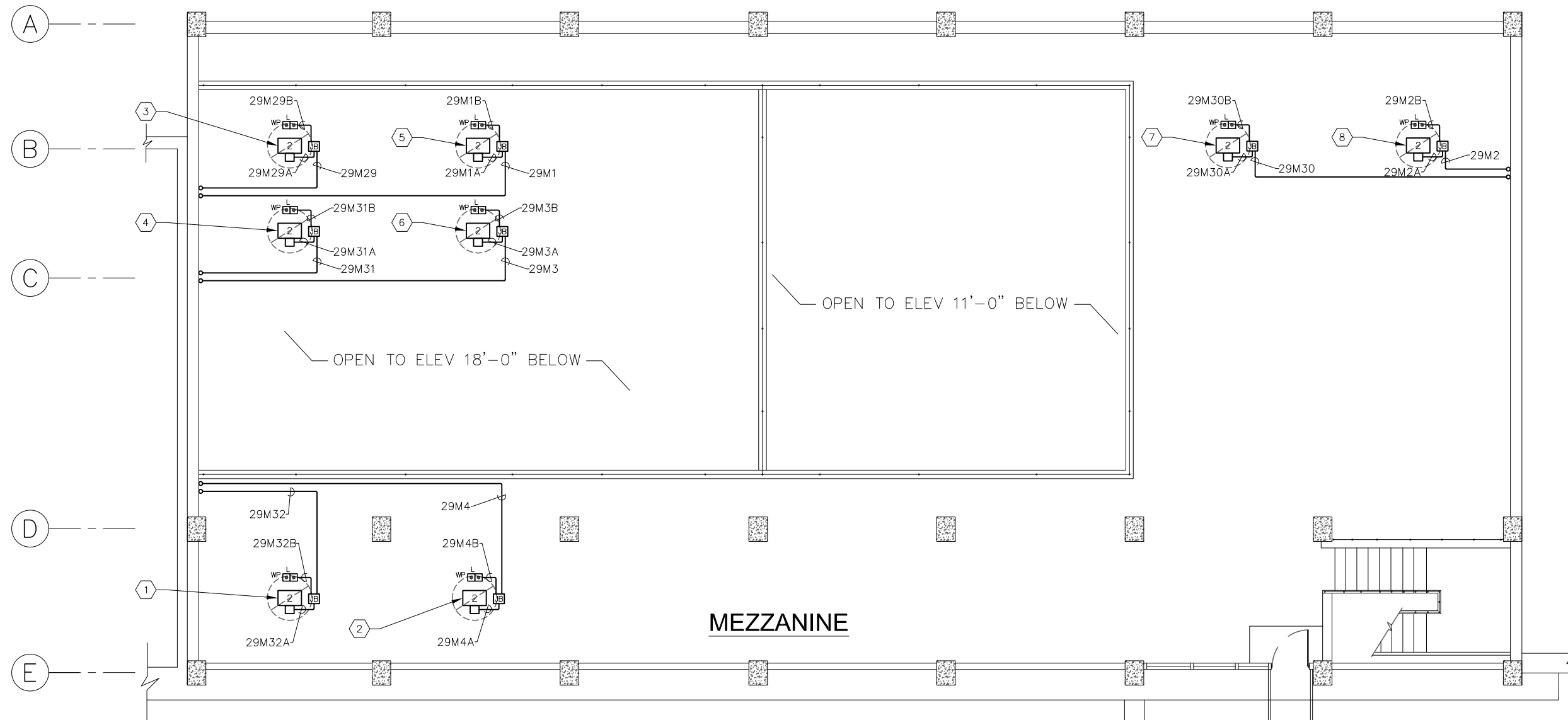
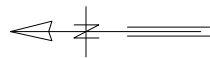
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City of Tampa Wastewater Department
**SCREEN & GRIT BUILDING No. 1
MCC 29 REPLACEMENT**

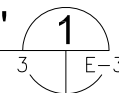
**SCREEN AND GRIT
BUILDING NO. 1 (059):
PARTIAL PLAN - ELEV 15'-6"**

| | |
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| SHEET NUMBER | E-2 |
| TIMOTHY THOMAS, P.E. No. 47079 | FILE: 231803742 |



**SCREEN AND GRIT BUILDING NO. 1 (059):
PARTIAL FLOOR PLAN - ELEVATION 31'-0"**

SCALE : 1" = 10'-0"



KEYED NOTES:

- ① EXISTING 480V, 3 ϕ , 2 HP ROOF EXHAUST FAN 'SG-REF-22' TO REMAIN.
- ② EXISTING 480V, 3 ϕ , 2 HP ROOF EXHAUST FAN 'SG-REF-23' TO REMAIN.
- ③ EXISTING 480V, 3 ϕ , 2 HP ROOF EXHAUST FAN 'SG-REF-16' TO REMAIN.
- ④ EXISTING 480V, 3 ϕ , 2 HP ROOF EXHAUST FAN 'SG-REF-20' TO REMAIN.
- ⑤ EXISTING 480V, 3 ϕ , 2 HP ROOF EXHAUST FAN 'SG-REF-17' TO REMAIN.
- ⑥ EXISTING 480V, 3 ϕ , 2 HP ROOF EXHAUST FAN 'SG-REF-21' TO REMAIN.
- ⑦ EXISTING 480V, 3 ϕ , 2 HP ROOF EXHAUST FAN 'SG-REF-18' TO REMAIN.
- ⑧ EXISTING 480V, 3 ϕ , 2 HP ROOF EXHAUST FAN 'SG-REF-19' TO REMAIN.



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**SCREEN & GRIT BUILDING No. 1
MCC 29 REPLACEMENT**

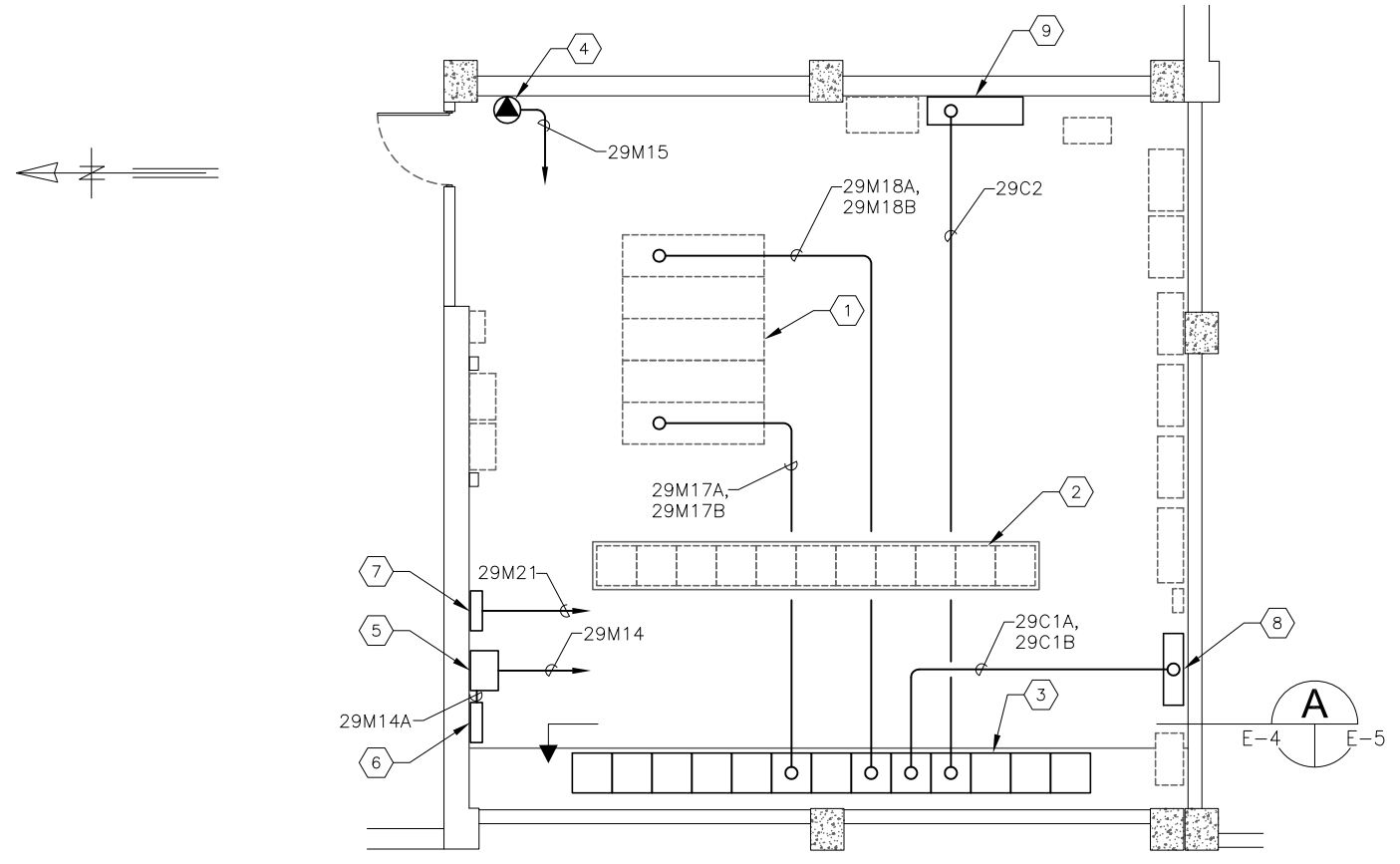
**SCREEN AND GRIT
BUILDING NO. 1 (059):
PARTIAL PLAN - ELEV 31'-0"**

TIMOTHY THOMAS, P.E. No. 47079

SHEET NUMBER

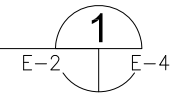
E-3

FILE: 231803742



**SCREEN AND GRIT BUILDING NO. 1 (059)
ELECTRICAL ROOM FLOOR PLAN**

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



KEYED NOTES:

- ① EXISTING 277/480V, 1,000A SWITCHGEAR 28 (SG-28) TO REMAIN. PROVIDE NEW CONDUCTORS AS INDICATED TO NEW MCC-29.
- ② EXISTING 277/480V, 600A, MOTOR CONTROL CENTER 28 (MCC-28) TO REMAIN. NO WORK REQUIRED.
- ③ EXISTING 277/480V, 600A, MOTOR CONTROL CENTER 29 (MCC-29) TO BE REPLACED. REFER ALSO TO SHEET E-5 FOR EXISTING FRONT ELEVATION.
- ④ EXISTING 480V, 60A, WELDING RECEPTACLE 'SG-WO-2' TO REMAIN.
- ⑤ EXISTING 480-120/208V, 3 ϕ , 30 KVA TRANSFORMER 'LT-29' TO REMAIN.
- ⑥ EXISTING 120/208V, 3 ϕ , 4-WIRE LIGHTING PANELBOARD 'LP-29' TO REMAIN.
- ⑦ EXISTING 277/480V, 3 ϕ , 4-WIRE LIGHTING PANELBOARD 'LP-28' TO REMAIN.
- ⑧ EXISTING CONTROL PANEL 'SG-TCP-1' TO REMAIN.
- ⑨ EXISTING TERMINAL BOX TO REMAIN.



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| JOB No. | 231803742 | | | | | | | | |
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| DRAWN | JLH | | | | | | | | |
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SCALE

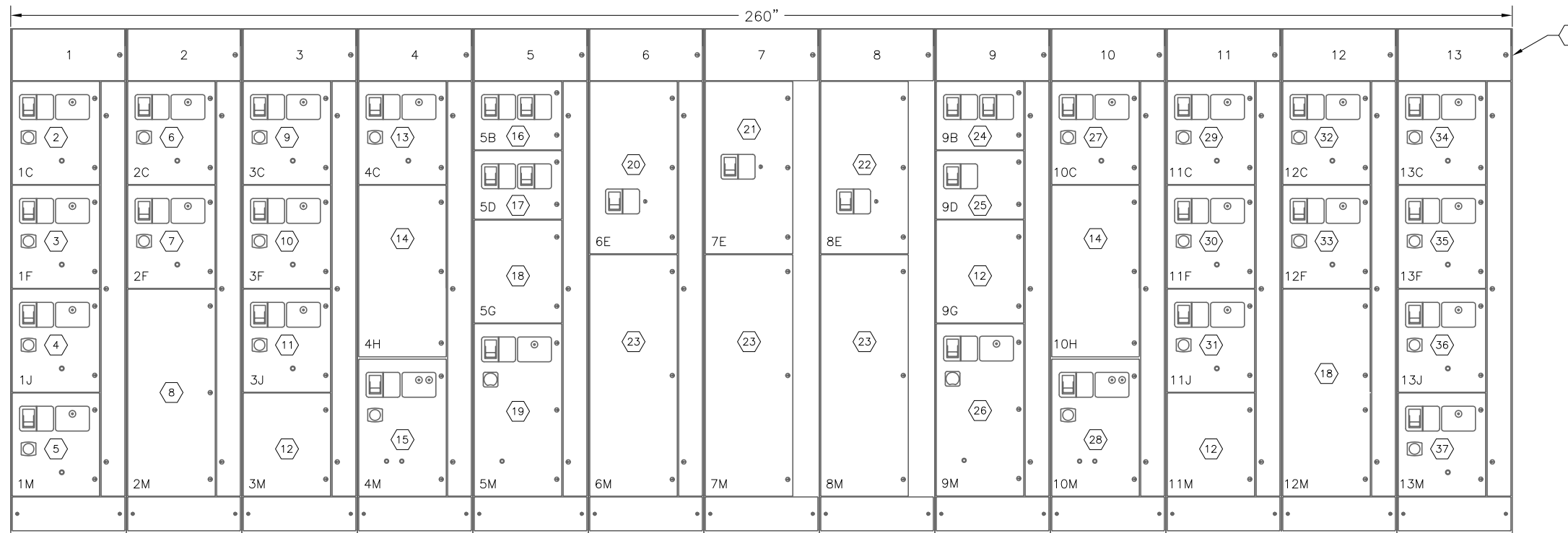
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City of Tampa Wastewater Department
**SCREEN & GRIT BUILDING No. 1
MCC 29 REPLACEMENT**

**SCREEN AND GRIT
BUILDING NO. 1
ELECTRICAL ROOM PLAN**

TIMOTHY THOMAS, P.E. No. 47079

SHEET NUMBER
E-4
FILE: 231803742



EXISTING MCC 29 FRONT ELEVATION

SCALE : N.T.S.



KEYED NOTES:

- ① 277/480V, 600A, 3Ø, 4-WIRE MCC-29. CONTRACTOR SHALL REMOVE EXISTING MCC AND PROVIDE NEW MCC-29 PER SPECIFICATIONS.
- ② 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER FOR ROOF EXHAUST FAN 'SG-REF-17'. SIMILAR CIRCUIT BREAKER AND MOTOR STARTER SHALL BE PROVIDED IN NEW MCC-29.
- ③ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER FOR ROOF EXHAUST FAN 'SG-REF-19'. SIMILAR CIRCUIT BREAKER AND MOTOR STARTER SHALL BE PROVIDED IN NEW MCC-29.
- ④ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER FOR ROOF EXHAUST FAN 'SG-REF-21'. SIMILAR CIRCUIT BREAKER AND MOTOR STARTER SHALL BE PROVIDED IN NEW MCC-29.
- ⑤ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER FOR ROOF EXHAUST FAN 'SG-REF-23'. SIMILAR CIRCUIT BREAKER AND MOTOR STARTER SHALL BE PROVIDED IN NEW MCC-29.
- ⑥ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER FOR SUPPLY FAN 'SG-S-13'. SIMILAR CIRCUIT BREAKER AND MOTOR STARTER SHALL BE PROVIDED IN NEW MCC-29.
- ⑦ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER FOR SUPPLY FAN 'SG-S-15'. SIMILAR CIRCUIT BREAKER AND MOTOR STARTER SHALL BE PROVIDED IN NEW MCC-29.
- ⑧ EXISTING 36" SPACE TO BE DUPLICATED IN MCC-29.
- ⑨ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER FOR SUPPLY FAN 'SG-S-5'. SIMILAR CIRCUIT BREAKER AND MOTOR STARTER SHALL BE PROVIDED IN NEW MCC-29.
- ⑩ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER FOR EXHAUST FAN 'EFB'. SIMILAR CIRCUIT BREAKER AND MOTOR STARTER SHALL BE PROVIDED IN NEW MCC-29.
- ⑪ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER FOR EXHAUST FAN 'EFD'. SIMILAR CIRCUIT BREAKER AND MOTOR STARTER SHALL BE PROVIDED IN NEW MCC-29.
- ⑫ EXISTING 18" SPACE TO BE DUPLICATED IN MCC-29.
- ⑬ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER FOR SUPPLY FAN 'SG-S-3'. SIMILAR CIRCUIT BREAKER AND MOTOR STARTER SHALL BE PROVIDED IN NEW MCC-29.
- ⑭ EXISTING 30" SPACE TO BE DUPLICATED IN MCC-29.
- ⑮ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER FOR SUPPLY FAN 'SG-S-11'. SIMILAR CIRCUIT BREAKER AND MOTOR STARTER SHALL BE PROVIDED IN NEW MCC-29.
- ⑯ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER FOR ROLLING DOOR 'SG-RD-5' AND 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER FOR ROLLING DOOR 'SG-RD-7'. SIMILAR CIRCUIT BREAKERS SHALL BE PROVIDED IN NEW MCC-29.
- ⑰ 480V, 100AF/50AT 3-POLE CIRCUIT BREAKER FOR LIGHTING PANELBOARD 'LP-29' AND 480V, 100AF/60AT 3-POLE CIRCUIT BREAKER FOR WELDING RECEPTACLE 'SG-WO-2'. SIMILAR CIRCUIT BREAKERS SHALL BE PROVIDED IN NEW MCC-29.
- ⑱ EXISTING 18" SPACE TO BE DUPLICATED IN MCC-29.
- ⑲ 480V, 150AF/150AT 3-POLE CIRCUIT BREAKER FOR EXHAUST FAN 'SG-E-1'. SG-E-1 IS NO LONGER IN USE. MCC-29 SHALL BE PROVIDED WITH 30" SPACE.
- ⑳ 480V, 600AF/600AT 3-POLE CIRCUIT BREAKER FROM SWITCHGEAR NO. 29 BUS NO. 1 FEEDER. SIMILAR CIRCUIT BREAKER SHALL BE PROVIDED IN NEW MCC-29.
- ㉑ 480V, 600AF/600AT 3-POLE TIE CIRCUIT BREAKER. SIMILAR CIRCUIT BREAKER SHALL BE PROVIDED IN NEW MCC-29.
- ㉒ 480V, 600AF/600AT 3-POLE CIRCUIT BREAKER FROM SWITCHGEAR NO. 29 BUS NO. 2 FEEDER. SIMILAR CIRCUIT BREAKER SHALL BE PROVIDED IN NEW MCC-29.
- ㉓ 42" CABLE COMPARTMENT TO BE DUPLICATED IN NEW MCC-29.
- ㉔ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER FOR ROLLING DOOR 'SG-RD-6' AND 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER FOR ROLLING DOOR 'SG-RD-8'. SIMILAR CIRCUIT BREAKERS SHALL BE PROVIDED IN NEW MCC-29.
- ㉕ 480V, 100AF/100AT 3-POLE CIRCUIT BREAKER FOR LIGHTING PANELBOARD 'LP-28'. SIMILAR CIRCUIT BREAKER SHALL BE PROVIDED IN NEW MCC-29.
- ㉖ 480V, 150AF/150AT 3-POLE CIRCUIT BREAKER FOR EXHAUST FAN 'SG-E-2'. SG-E-2 IS NO LONGER IN USE. MCC-29 SHALL BE PROVIDED WITH 30" SPACE.
- ㉗ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER FOR ROOF EXHAUST FAN 'SG-REF-24'. SIMILAR CIRCUIT BREAKER AND MOTOR STARTER SHALL BE PROVIDED IN NEW MCC-29.
- ㉘ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER FOR SUPPLY FAN 'SG-S-10'. SIMILAR CIRCUIT BREAKER AND MOTOR STARTER SHALL BE PROVIDED IN NEW MCC-29.
- ㉙ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER FOR SUPPLY FAN 'SG-S-4'. SIMILAR CIRCUIT BREAKER AND MOTOR STARTER SHALL BE PROVIDED IN NEW MCC-29.
- ㉚ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER FOR SUPPLY FAN 'SG-S-6'. SIMILAR CIRCUIT BREAKER AND MOTOR STARTER SHALL BE PROVIDED IN NEW MCC-29.
- ㉛ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER FOR EXHAUST FAN 'EFC'. SIMILAR CIRCUIT BREAKER AND MOTOR STARTER SHALL BE PROVIDED IN NEW MCC-29.
- ㉜ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER FOR EXHAUST FAN 'EFA'. SIMILAR CIRCUIT BREAKER AND MOTOR STARTER SHALL BE PROVIDED IN NEW MCC-29.
- ㉝ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER FOR SUPPLY FAN 'SG-S-14'. SIMILAR CIRCUIT BREAKER AND MOTOR STARTER SHALL BE PROVIDED IN NEW MCC-29.
- ㉞ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER FOR ROOF EXHAUST FAN 'SG-REF-16'. SIMILAR CIRCUIT BREAKER AND MOTOR STARTER SHALL BE PROVIDED IN NEW MCC-29.
- ㉟ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER FOR ROOF EXHAUST FAN 'SG-REF-18'. SIMILAR CIRCUIT BREAKER AND MOTOR STARTER SHALL BE PROVIDED IN NEW MCC-29.
- ㊱ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER FOR ROOF EXHAUST FAN 'SG-REF-20'. SIMILAR CIRCUIT BREAKER AND MOTOR STARTER SHALL BE PROVIDED IN NEW MCC-29.
- ㊲ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER FOR ROOF EXHAUST FAN 'SG-REF-22'. SIMILAR CIRCUIT BREAKER AND MOTOR STARTER SHALL BE PROVIDED IN NEW MCC-29.



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|----------|-----------|-----|------|----|-----|----------|-------------|
| JOB No. | 231803742 | | | | | | |
| DESIGNED | TDT | | | | | | |
| DRAWN | JLH | | | | | | |
| CHECKED | TDT | | | | | | |
| DATE | 3/2019 | No. | DATE | BY | APP | REVISION | DESCRIPTION |

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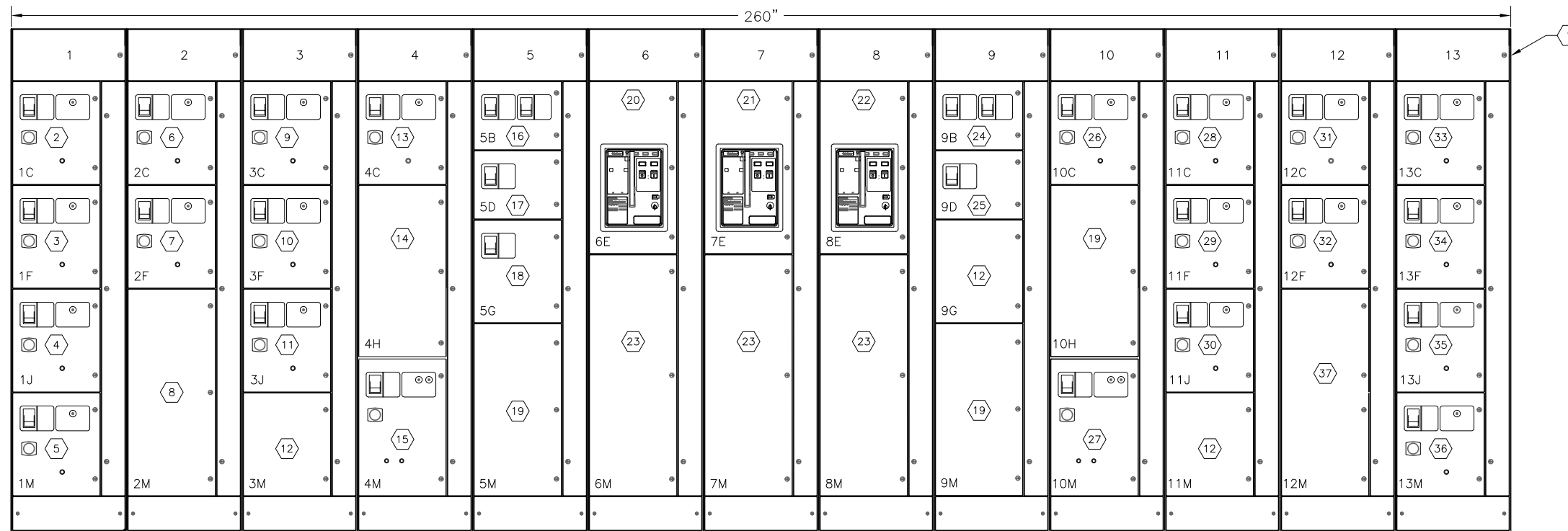
NOT TO SCALE

City of Tampa Wastewater Department
SCREEN & GRIT BUILDING No. 1
MCC 29 REPLACEMENT

EXISTING MCC-29
FRONT ELEVATION

TIMOTHY THOMAS, P.E. No. 47079

SHEET NUMBER
E-5
FILE: 231803742E01



PROPOSED MCC 29 FRONT ELEVATION

SCALE : N.T.S.

KEYED NOTES:

- ① NEW 277/480V, 600A, 3 ϕ , 4-WIRE MOTOR CONTROL CENTER 29 (MCC-29). REFER ALSO TO SPECIFICATIONS.
- ② 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER AND STARTER FOR EXISTING 2 HP ROOF EXHAUST FAN 'SG-REF-17'.
- ③ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER AND STARTER FOR EXISTING 2 HP ROOF EXHAUST FAN 'SG-REF-19'.
- ④ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER AND STARTER FOR EXISTING 2 HP ROOF EXHAUST FAN 'SG-REF-21'.
- ⑤ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER AND STARTER FOR EXISTING 2 HP ROOF EXHAUST FAN 'SG-REF-23'.
- ⑥ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER AND STARTER FOR EXISTING 1.5 HP SUPPLY FAN 'SG-S-13'.
- ⑦ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER AND STARTER FOR EXISTING 1.5 HP SUPPLY FAN 'SG-S-15'.
- ⑧ 36" SPACE TO BE PROVIDED IN MCC-29.
- ⑨ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER AND STARTER FOR EXISTING 3 HP SUPPLY FAN 'SG-S-5'.
- ⑩ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER AND STARTER FOR EXISTING 3 HP EXHAUST FAN 'EFB'.
- ⑪ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER AND STARTER FOR EXISTING 3 HP EXHAUST FAN 'EFD'.
- ⑫ 18" SPACE TO BE PROVIDED IN MCC-29.
- ⑬ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER AND STARTER FOR EXISTING 5 HP SUPPLY FAN 'SG-S-3'.
- ⑭ 30" SPACE TO BE PROVIDED IN MCC-29.
- ⑮ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER AND 2-SPEED STARTER FOR EXISTING SUPPLY FAN 'SG-S-11'.
- ⑯ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER FOR EXISTING ROLLING DOOR 'SG-RD-5' AND 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER FOR EXISTING ROLLING DOOR 'SG-RD-7'.
- ⑰ 480V, 100AF/50AT 3-POLE CIRCUIT BREAKER FOR LIGHTING PANELBOARD 'LP-29'.
- ⑱ 480V, 100AF/60AT 3-POLE CIRCUIT BREAKER FOR WELDING RECEPTACLE 'SG-WO-2'.
- ⑲ 30" SPACE TO BE PROVIDED IN MCC-29.
- ⑳ 480V, 600AF/600AT 3-POLE CIRCUIT BREAKER FORM SWITCHGEAR NO. 29 BUS NO. 1 FEEDER.
- ㉑ 480V, 600AF/600AT 3-POLE TIE CIRCUIT BREAKER.
- ㉒ 480V, 600AF/600AT 3-POLE CIRCUIT BREAKER FOR SWITCHGEAR NO. 29 BUS NO. 2 FEEDER.
- ㉓ 42" CABLE COMPARTMENT TO BE PROVIDED IN MCC-29.
- ㉔ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER FOR EXISTING ROLLING DOOR 'SG-RD-6' AND 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER FOR EXISTING ROLLING DOOR 'SG-RD-8'.
- ㉕ 480V, 100AF/100AT 3-POLE CIRCUIT BREAKER FOR EXISTING LIGHTING PANELBOARD 'LP-28'.
- ㉖ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER AND STARTER FOR EXISTING 1/2 HP ROOF EXHAUST FAN 'SG-REF-24'.
- ㉗ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER AND STARTER FOR EXISTING 2 HP SUPPLY FAN 'SG-S-10'.
- ㉘ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER AND STARTER FOR EXISTING 3 HP SUPPLY FAN 'SG-S-4'.
- ㉙ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER AND STARTER FOR EXISTING 3 HP SUPPLY FAN 'SG-S-6'.
- ㉚ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER AND STARTER FOR EXISTING 5 HP EXHAUST FAN 'EFC'.
- ㉛ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER AND STARTER FOR EXISTING 5 HP EXHAUST FAN 'EFA'.
- ㉜ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER AND STARTER FOR EXISTING 1.5 HP SUPPLY FAN 'SG-S-14'.
- ㉝ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER AND STARTER FOR EXISTING 2 HP ROOF EXHAUST FAN 'SG-REF-16'.
- ㉞ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER AND STARTER FOR EXISTING 2 HP ROOF EXHAUST FAN 'SG-REF-18'.
- ㉟ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER AND STARTER FOR EXISTING 2 HP ROOF EXHAUST FAN 'SG-REF-20'.
- ㊱ 480V, 100AF/15AT 3-POLE CIRCUIT BREAKER AND STARTER FOR EXISTING 2 HP ROOF EXHAUST FAN 'SG-REF-22'.
- ㊲ 36" SPACE TO BE PROVIDED IN MCC-29.

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| JOB No. | 231803742 | | | | | | |
| DESIGNED | TD | | | | | | |
| DRAWN | JLH | | | | | | |
| CHECKED | TD | | | | | | |
| DATE | 3/2019 | No. | DATE | BY | APP | REVISION | DESCRIPTION |

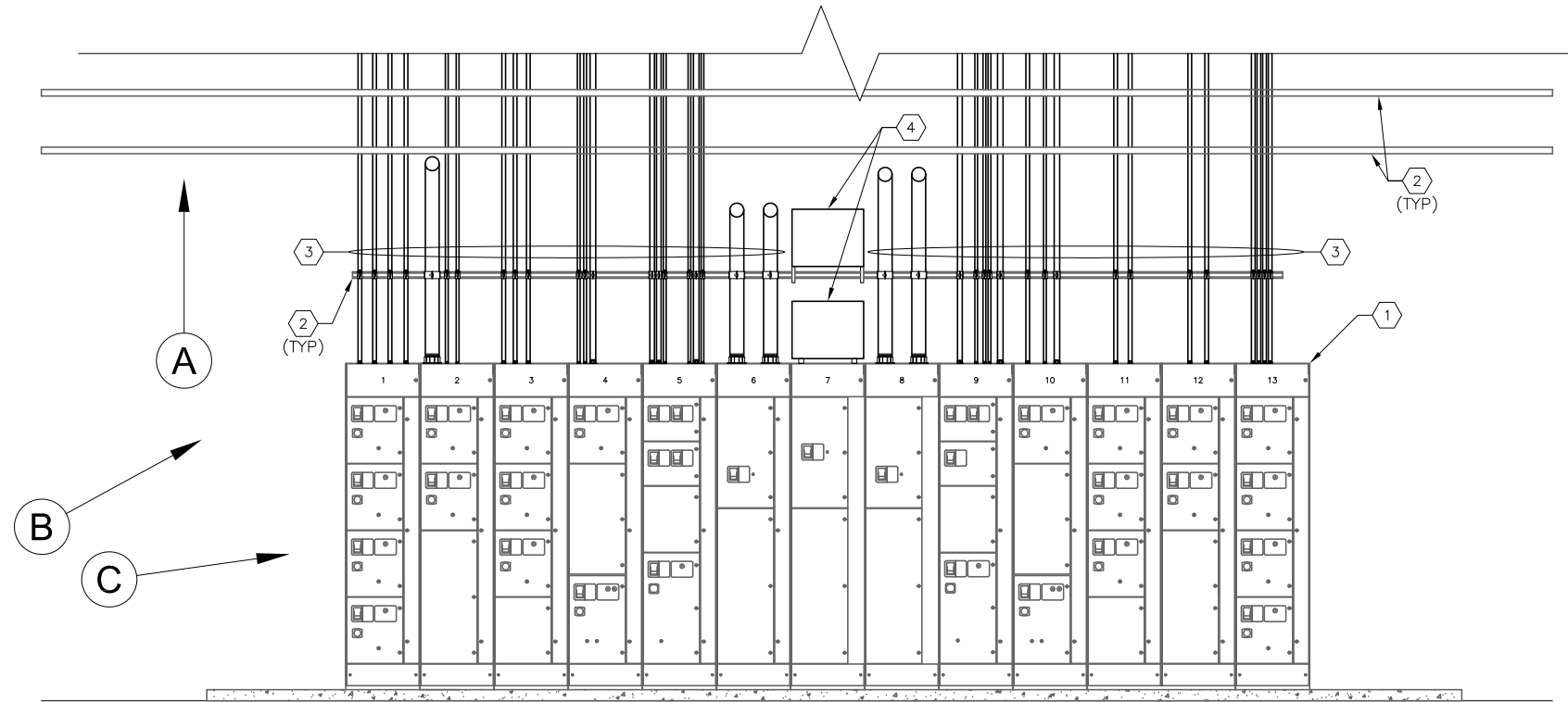
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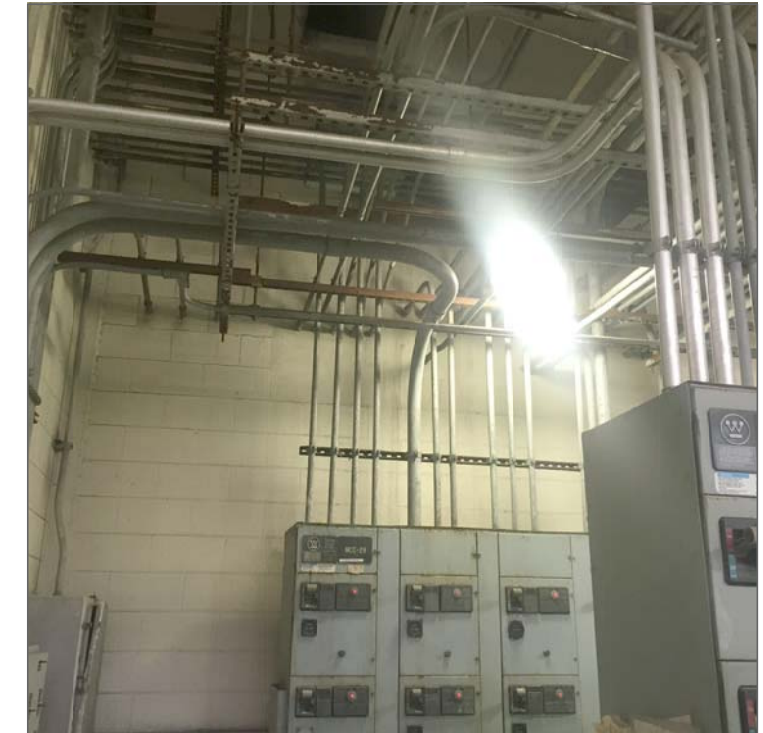
City of Tampa Wastewater Department
SCREEN & GRIT BUILDING No. 1
MCC 29 REPLACEMENT

PROPOSED MCC-29
FRONT ELEVATION

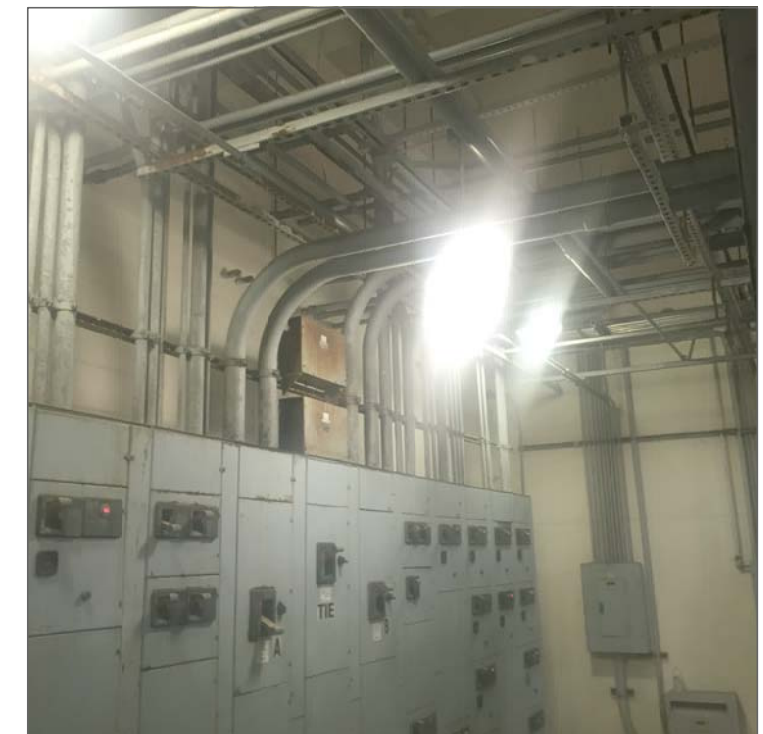
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| SHEET NUMBER | E-6 |
| TIMOTHY THOMAS, P.E. No. 47079 | FILE: 231803742E01 |



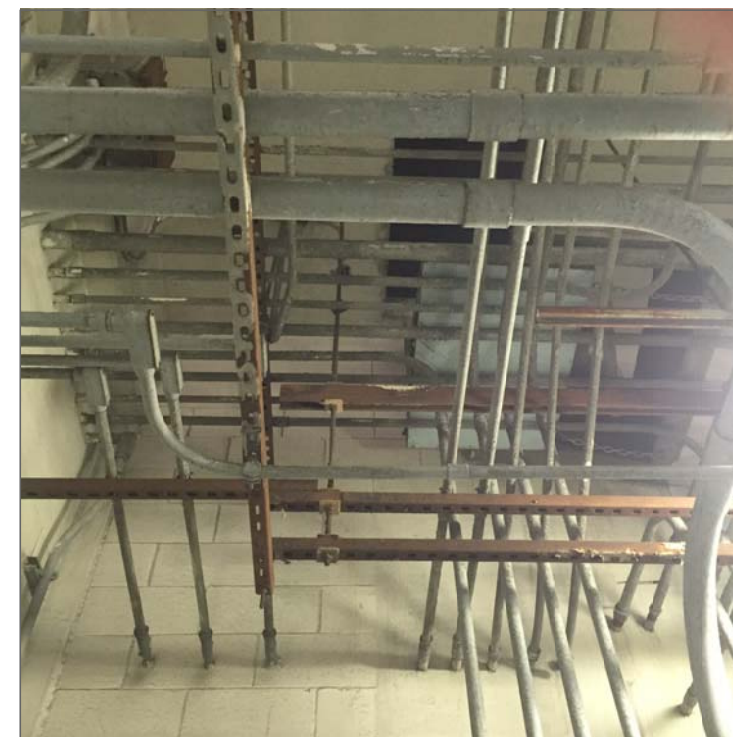
MCC 29 FIELD MODIFICATIONS
SCALE : N.T.S.



PHOTOGRAPH (B)



PHOTOGRAPH (C)



PHOTOGRAPH (A)

KEYED NOTES:

- ① 277/480V, 600A, 3 ϕ , 4-WIRE MCC-29. CONTRACTOR SHALL REMOVE EXISTING MCC AND PROVIDE NEW MCC-29 PER SPECIFICATIONS.
- ② EXISTING STRUT SUPPORTS TO BE REPLACED WITH 1-5/8" X 1-5/8" STAINLESS STEEL UNISTRUT. TYPICAL FOR ALL EXISTING STRUT SUPPORTS ABOVE EXISTING MCC-29 TO BOTTOM OF CEILING. NOT ALL STRUTS SHOWN FOR CLARITY. REFER ALSO TO REFERENCE PHOTOGRAPHS ON THIS SHEET.
- ③ EXISTING CONDUIT EMANATING FROM MCC-29. CONDUITS TO BE REUSED, BUT EXTERIOR OF CONDUITS SHALL BE REPAINTED. CONDUITS WILL ONLY BE REQUIRED TO BE PAINTED IN THE AREA ABOVE EXISTING MCC-29, OR AS DIRECTED BY THE CITY OF TAMPA.
- ④ EXISTING CAPACITOR BANKS TO BE REMOVED.

GENERAL NOTES:

- 1. EXISTING ALL THREAD ROD CURRENTLY UTILIZED TO SUPPORT STRUT THAT IS REPLACED SHALL BE REPLACED IN IN KIND WITH 1/2" STAINLESS STEEL ALL THREAD. THIS SHALL INCLUDE ALL MOUNTING HARDWARE.

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City of Tampa Wastewater Department
SCREEN & GRIT BUILDING No. 1
MCC 29 REPLACEMENT

EXISTING MCC-29
REQUIRED
FIELD MODIFICATIONS

SHEET NUMBER

E-7

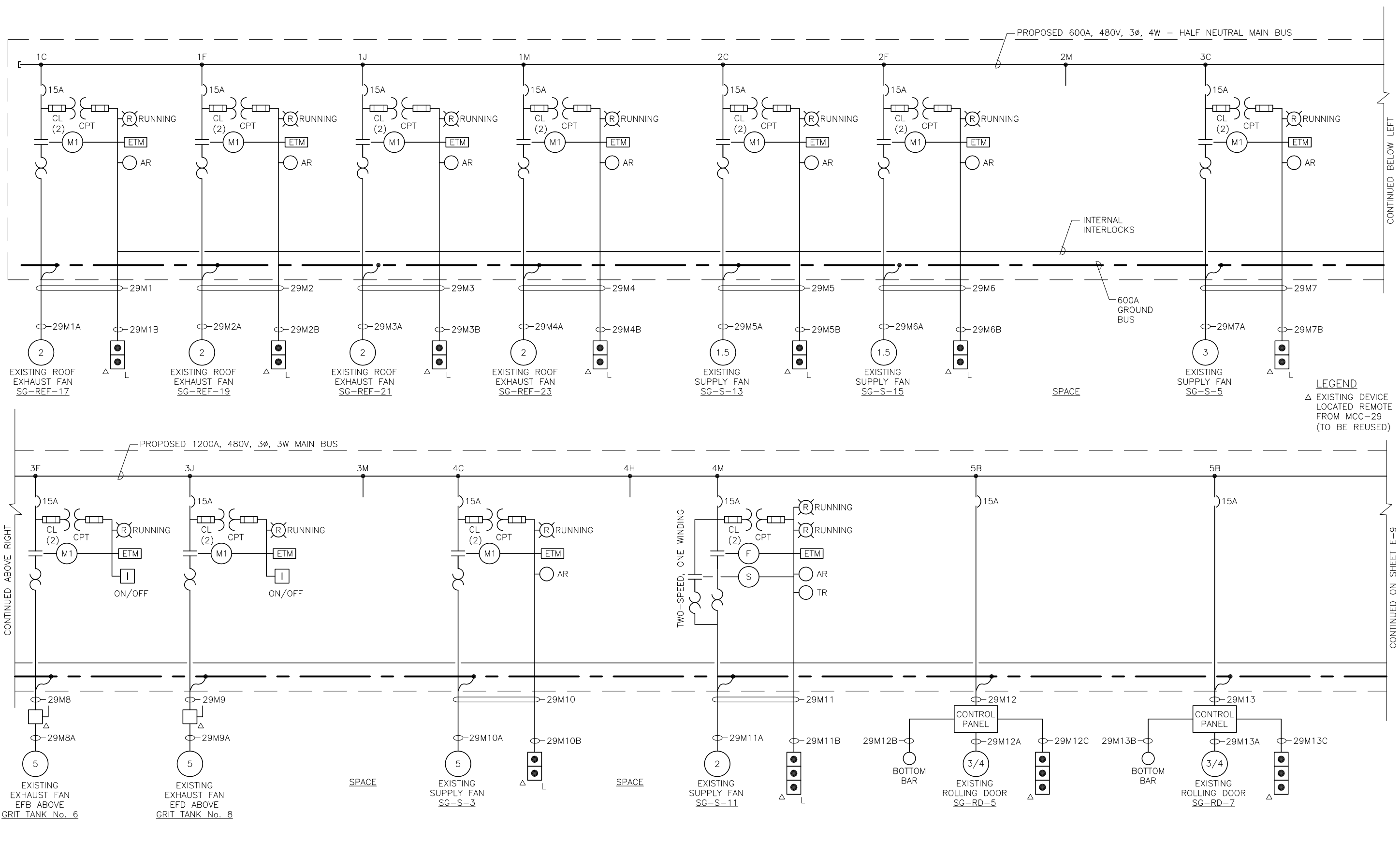
TIMOTHY THOMAS, P.E. No. 47079

FILE: 231803742E01



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| JOB No. | 231803742 | | | | | | | | |
| DESIGNED | TDT | | | | | | | | |
| DRAWN | JLH | | | | | | | | |
| CHECKED | TDT | | | | | | | | |
| DATE | 3/2019 | No. | DATE | BY | APP | REVISION | DESCRIPTION | | |



LEGEND
 Δ EXISTING DEVICE LOCATED REMOTE FROM MCC-29 (TO BE REUSED)



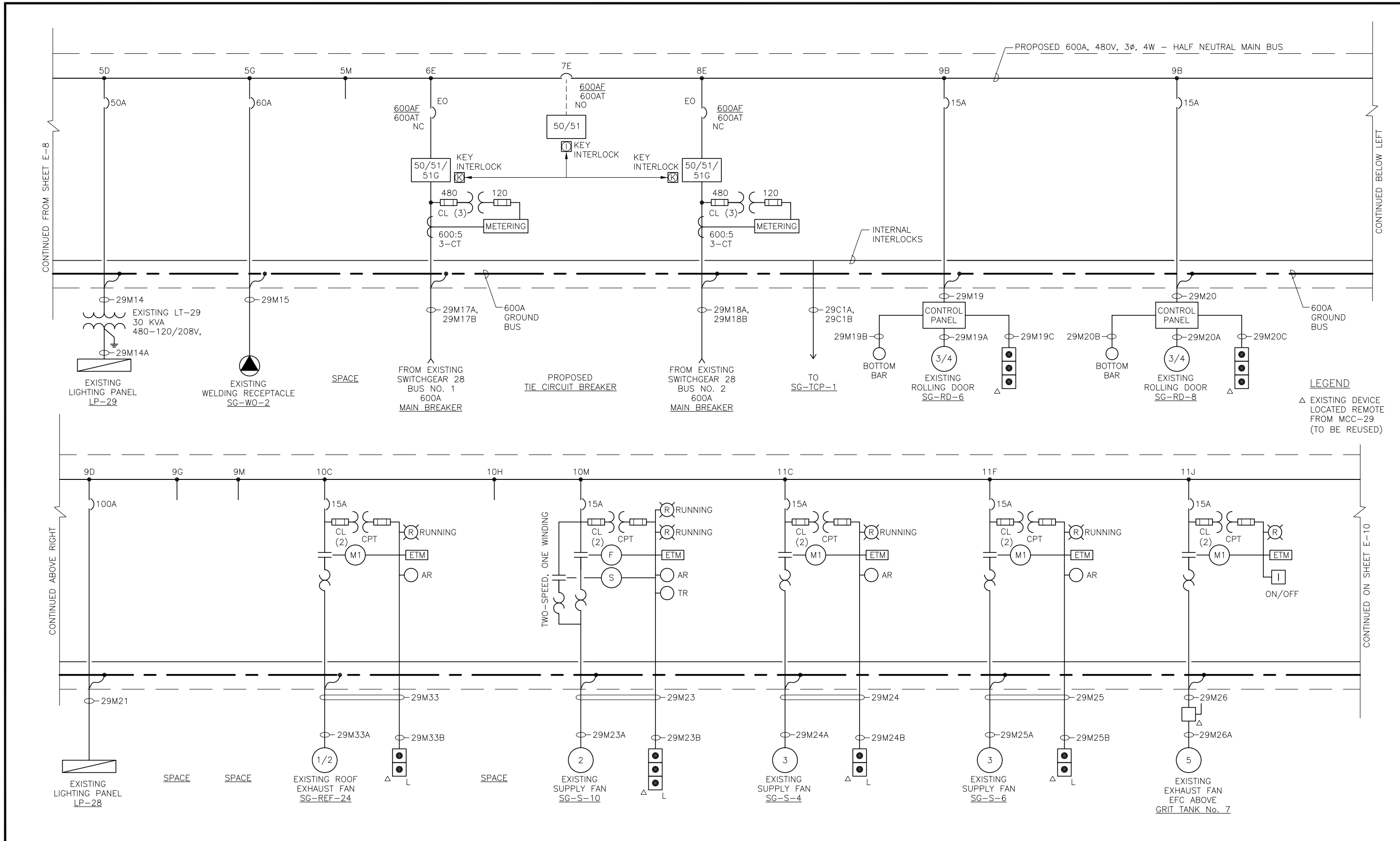
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| JOB No. | 231803742 | | | | | | |
| DESIGNED | TDT | | | | | | |
| DRAWN | JLH | | | | | | |
| CHECKED | TDT | | | | | | |
| DATE | 3/2019 | No. | DATE | BY | APP | REVISION | DESCRIPTION |

SCALE
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City of Tampa Wastewater Department
 SCREEN & GRIT BUILDING No. 1
 MCC 29 REPLACEMENT

MCC-29 ELECTRICAL
 ONE-LINE DIAGRAM
 (SHEET 1 OF 3)

| | |
|--------------------------------|--------------------|
| SHEET NUMBER | E-8 |
| TIMOTHY THOMAS, P.E. No. 47079 | FILE: 231803742E01 |



TRICON
CONSULTING ENGINEERS

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|----------|-----------|-----|------|----|-----|----------|-------------|
| JOB No. | 231803742 | | | | | | |
| DESIGNED | TDT | | | | | | |
| DRAWN | JLH | | | | | | |
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| DATE | 3/2019 | No. | DATE | BY | APP | REVISION | DESCRIPTION |

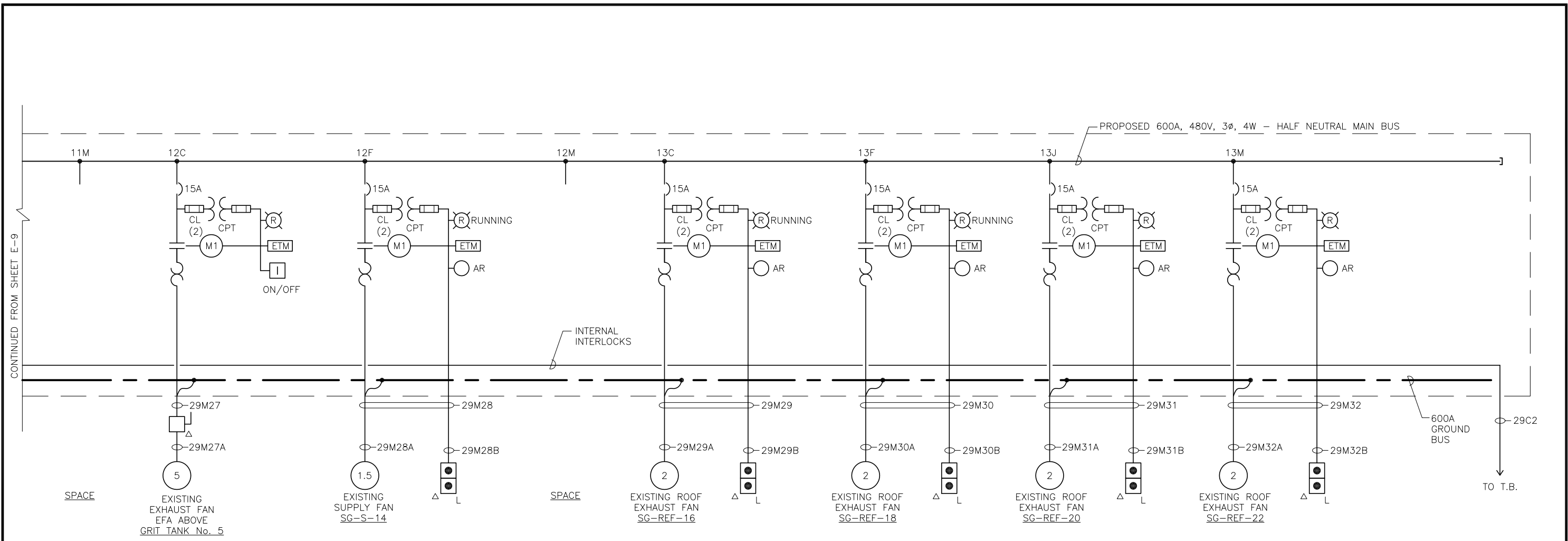
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City of Tampa Wastewater Department
SCREEN & GRIT BUILDING No. 1
MCC 29 REPLACEMENT

MCC-29 ELECTRICAL
ONE-LINE DIAGRAM
(SHEET 2 OF 3)

| | |
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| SHEET NUMBER | E-9 |
| TIMOTHY THOMAS, P.E. No. 47079 | FILE: 231803742E09 |



CONTINUED FROM SHEET E-9

LEGEND
 Δ EXISTING DEVICE
 LOCATED REMOTE
 FROM MCC-29
 (TO BE REUSED)

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|----------|-----------|-----|------|----|-----|----------|-------------|
| JOB No. | 231803742 | | | | | | |
| DESIGNED | TDT | | | | | | |
| DRAWN | JLH | | | | | | |
| CHECKED | TDT | | | | | | |
| DATE | 3/2019 | No. | DATE | BY | APP | REVISION | DESCRIPTION |

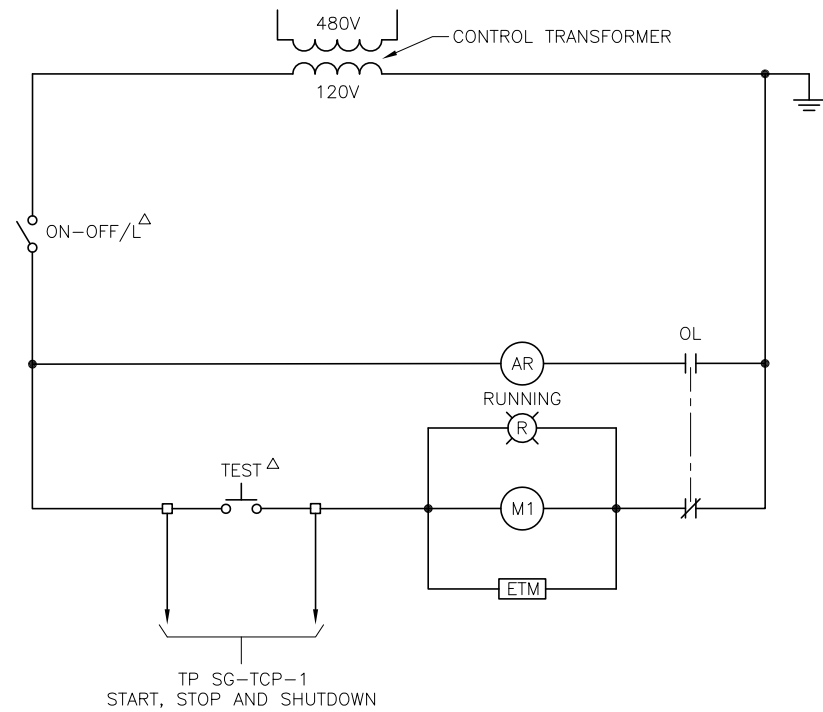
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City of Tampa Wastewater Department
 SCREEN & GRIT BUILDING No. 1
 MCC 29 REPLACEMENT

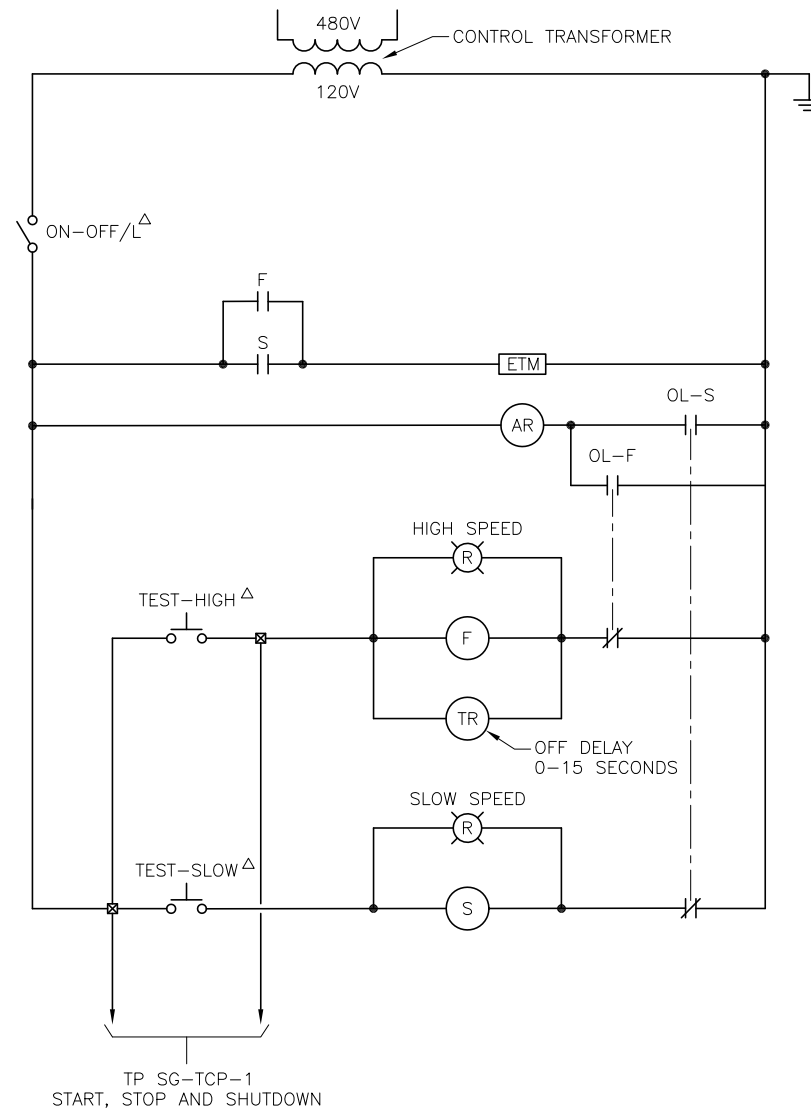
MCC-29 ELECTRICAL
 ONE-LINE DIAGRAM
 (SHEET 3 OF 3)

| | |
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| SHEET NUMBER | E-10 |
| TIMOTHY THOMAS, P.E. No. 47079 | FILE: 231803742E03 |

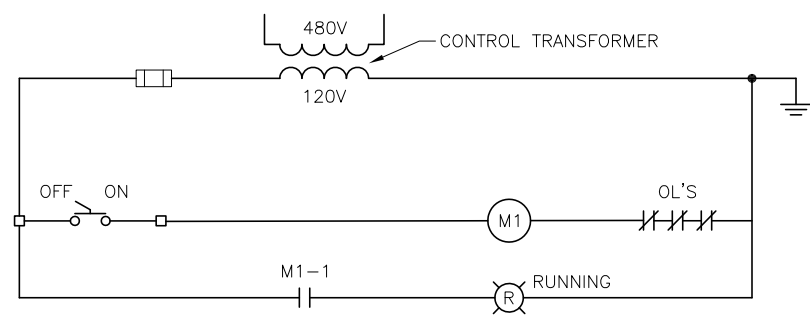


SUPPLY FANS
SG-S-3 THRU 9, SG-S-12 THRU 16
(MCC-29)

ROOF EXHAUST FANS
SG-REF-16 THRU 24
(MCC-29)



SUPPLY FANS
SG-S-10 AND 11
(MCC-29)



SG-EFA
SG-EFB, SG-EFC AND SG-EFD ARE SIMILAR
(MCC-29)

CONTROLS DESIGNATIONS

- Δ EXISTING DEVICE LOCATED REMOTE FROM MCC-29 (TO BE REUSED)
- INDICATES TERMINAL BLOCK WITHIN MCC-29
- ⊗ INDICATES TERMINAL ON FIELD DEVICE

TCP-1 TEMPERATURE CONTROL PANEL

| MCC-29 BUS 1 LOAD CALCULATION | | | | |
|------------------------------------------------|----------|------|--------------|----------------|
| EQUIPMENT | BUS No. | H.P. | DEMAND KVA | DEMAND AMPERES |
| MCC-29, BUS #1 | | | | |
| EXISTING ROOF EXHAUST FAN SG-REF-17 | 1 | 2.0 | 1.84 | 3.4 |
| EXISTING ROOF EXHAUST FAN SG-REF-19 | 1 | 2.0 | 1.84 | 3.4 |
| EXISTING ROOF EXHAUST FAN SG-REF-21 | 1 | 2.0 | 1.84 | 3.4 |
| EXISTING ROOF EXHAUST FAN SG-REF-23 | 1 | 2.0 | 1.84 | 3.4 |
| EXISTING SUPPLY FAN SG-S-13 | 1 | 1.5 | 1.38 | 3.0 |
| EXISTING SUPPLY FAN SG-S-15 | 1 | 1.5 | 1.38 | 3.0 |
| EXISTING SUPPLY FAN SG-S-5 | 1 | 3.0 | 2.76 | 4.8 |
| EXISTING EXHAUST FAN EFB ABOVE GRIT TANK No. 6 | 1 | 5.0 | 4.60 | 7.6 |
| EXISTING EXHAUST FAN EFD ABOVE GRIT TANK No. 8 | 1 | 5.0 | 4.60 | 7.6 |
| EXISTING SUPPLY FAN SG-S-3 | 1 | 5.0 | 4.60 | 7.6 |
| EXISTING SUPPLY FAN SG-S-11 | 1 | 2.0 | 1.84 | 3.4 |
| EXISTING ROLLING DOOR SG-RD-5 | 1 | 0.75 | 0.68 | 1.6 |
| EXISTING ROLLING DOOR SG-RD-7 | 1 | 0.75 | 0.68 | 1.6 |
| EXISTING LIGHTING PANEL LP-29 | 1 | | 30.0 | 36.0 |
| EXISTING WELDING RECEPTACLE SG-WO-2 | 1 | | 60.0 | 54.0 |
| TOTAL MCC-29 BUS 1 | 1 | | 119.9 | 143.8 |

| MCC-29 BUS 2 LOAD CALCULATION | | | | |
|------------------------------------------------|----------|------|--------------|----------------|
| EQUIPMENT | BUS No. | H.P. | DEMAND KVA | DEMAND AMPERES |
| MCC-29, BUS #2 | | | | |
| EXISTING ROLLING DOOR SG-RD-6 | 2 | 0.75 | 0.68 | 1.6 |
| EXISTING ROLLING DOOR SG-RD-8 | 2 | 0.75 | 0.68 | 1.6 |
| EXISTING LIGHTING PANEL LP-28 | 2 | | 75.0 | 90.0 |
| EXISTING ROOF EXHAUST FAN SG-REF-24 | 2 | 0.5 | 0.38 | 1.1 |
| EXISTING SUPPLY FAN SG-S-10 | 2 | 2.0 | 1.84 | 3.4 |
| EXISTING SUPPLY FAN SG-S-4 | 2 | 3.0 | 2.76 | 4.8 |
| EXISTING SUPPLY FAN SG-S-6 | 2 | 3.0 | 2.76 | 4.8 |
| EXISTING EXHAUST FAN EFC ABOVE GRIT TANK No. 7 | 2 | 5.0 | 4.60 | 7.6 |
| EXISTING EXHAUST FAN EFA ABOVE GRIT TANK No. 5 | 2 | 5.0 | 4.60 | 7.6 |
| EXISTING SUPPLY FAN SG-S-14 | 2 | 1.5 | 1.38 | 3.0 |
| EXISTING ROOF EXHAUST FAN SG-REF-16 | 2 | 2.0 | 1.84 | 3.4 |
| EXISTING ROOF EXHAUST FAN SG-REF-18 | 2 | 2.0 | 1.84 | 3.4 |
| EXISTING ROOF EXHAUST FAN SG-REF-20 | 2 | 2.0 | 1.84 | 3.4 |
| EXISTING ROOF EXHAUST FAN SG-REF-22 | 2 | 2.0 | 1.84 | 3.4 |
| TOTAL MCC-29 BUS 2 | 2 | | 102.1 | 139.1 |

NOTE: BOTH MCC-29 BUS 1 AND MCC-29 BUS 2 WILL BE RATED FOR 600 AMPERES.



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SCALE

NOT TO SCALE

City of Tampa Wastewater Department
HOWARD F. CURREN AWTP
MOTOR CONTROL CENTER 59
AND 59A REPLACEMENT

MCC-29 TYPICAL MOTOR
CONTROL SCHEMATICS

TIMOTHY THOMAS, P.E. No. 47079

SHEET NUMBER
E-11
FILE: 231803742E01

CONDUIT AND CABLE SCHEDULE

| CONDUIT No. | SIZE | NUMBER OF CONDUCTORS/SIZE | FROM | TO | REMARKS |
|-------------|--------|---------------------------|------------------------|------------------------|---------------------------------------------------------------------------------|
| 29M1 | 1" | 3-#12 + 3-#14 + 1-#12 GND | MCC-29 | JB NEAR SG-REF-17 | 1" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M1A | 3/4" | 3-#12 + 1-#12 GND | JB NEAR SG-REF-17 | SG-REF-17 | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M1B | 3/4" | 3-#14 + 1-#12 GND | JB NEAR SG-REF-17 | PUSHBUTTON STATION | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M2 | 1" | 3-#12 + 3-#14 + 1-#12 GND | MCC-29 | JB NEAR SG-REF-19 | 1" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M2A | 3/4" | 3-#12 + 1-#12 GND | JB NEAR SG-REF-19 | SG-REF-19 | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M2B | 3/4" | 3-#14 + 1-#14 GND | JB NEAR SG-REF-19 | PUSHBUTTON STATION | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M3 | 1" | 3-#12 + 3-#14 + 1-#12 GND | MCC-29 | JB NEAR SG-REF-21 | 1" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M3A | 3/4" | 3-#12 + 1-#12 GND | JB NEAR SG-REF-21 | SG-REF-21 | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M3B | 3/4" | 3-#14 + 1-#12 GND | JB NEAR SG-REF-21 | PUSHBUTTON STATION | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M4 | 1" | 3-#12 + 3-#14 + 1-#12 GND | MCC-29 | JB NEAR SG-REF-23 | 1" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M4A | 3/4" | 3-#12 + 1-#12 GND | JB NEAR SG-REF-23 | SG-REF-23 | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M4B | 3/4" | 3-#14 + 1-#12 GND | JB NEAR SG-REF-23 | PUSHBUTTON STATION | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M5 | 1" | 3-#12 + 3-#14 + 1-#12 GND | MCC-29 | JB NEAR SG-S-13 | 1" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M5A | 3/4" | 3-#12 + 1-#12 GND | JB NEAR SG-S-13 | SG-S-13 | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M5B | 3/4" | 3-#14 + 1-#12 GND | JB NEAR SG-S-13 | PUSHBUTTON STATION | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M6 | 1" | 3-#12 + 3-#14 + 1-#12 GND | MCC-29 | JB NEAR SG-S-15 | 1" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M6A | 3/4" | 3-#12 + 1-#12 GND | JB NEAR SG-S-15 | SG-S-15 | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M6B | 3/4" | 3-#14 + 1-#14 GND | JB NEAR SG-S-15 | PUSHBUTTON STATION | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M7 | 1" | 3-#12 + 3-#14 + 1-#12 GND | MCC-29 | JB NEAR SG-S-5 | 1" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M7A | 3/4" | 3-#12 + 1-#12 GND | JB NEAR SG-S-5 | SG-S-5 | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M7B | 3/4" | 3-#14 + 1-#14 GND | JB NEAR SG-S-5 | PUSHBUTTON STATION | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M8 | 1" | 3-#12 + 1-#12 GND | MCC-29 | DISCONNECT NEAR SG-EFB | 1" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M8A | 3/4" | 3-#12 + 1-#12 GND | DISCONNECT NEAR SG-EFB | SG-EFB | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M9 | 1" | 3-#12 + 1-#12 GND | MCC-29 | DISCONNECT NEAR SG-EFD | 1" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M9A | 3/4" | 3-#12 + 1-#12 GND | DISCONNECT NEAR SG-EFD | SG-EFD | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M10 | 1" | 3-#12 + 3-#14 + 1-#12 GND | MCC-29 | JB NEAR SG-S-3 | 1" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M10A | 3/4" | 3-#12 + 1-#12 GND | JB NEAR SG-S-3 | SG-S-3 | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M10B | 3/4" | 3-#14 + 1-#12 GND | JB NEAR SG-S-3 | PUSHBUTTON STATION | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M11 | 1-1/4" | 6-#12 + 4-#14 + 1-#12 GND | MCC-29 | JB NEAR SG-S-11 | 1-1/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M11A | 1" | 6-#12 + 1-#12 GND | JB NEAR SG-S-11 | SG-S-11 | 1" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M11B | 3/4" | 4-#14 + 1-#12 GND | JB NEAR SG-S-11 | PUSHBUTTON STATION | 1" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M12 | 3/4" | 3-#12 + 1-#12 GND | MCC-29 | SG-RD-5 CONTROL PANEL | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M12A | 3/4" | 3-#12 + 1-#12 GND | SG-RD-5 CONT. PNL | SG-RD-5 | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M12B | 3/4" | 2-#14 + 1-#14 GND | SG-RD-5 CONT. PNL | BOTTOM BAR | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M12C | 3/4" | 6-#14 + 1-#14 GND | SG-RD-5 CONT. PNL | PUSHBUTTON STATION | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M13 | 3/4" | 3-#12 + 1-#12 GND | MCC-29 | SG-RD-7 CONTROL PANEL | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M13A | 3/4" | 3-#12 + 1-#12 GND | SG-RD-7 CONT. PNL | SG-RD-7 | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M13B | 3/4" | 2-#14 + 1-#14 GND | SG-RD-7 CONT. PNL | BOTTOM BAR | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M13C | 3/4" | 6-#14 + 1-#14 GND | SG-RD-7 CONT. PNL | PUSHBUTTON STATION | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M14 | 1-1/4" | 3-#6 + 1-#10 GND | MCC-29 | LT-29 | 1" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |
| 29M14A | 2-1/2" | 4-#2 + 1-#8 GND | LT-29 | LP-29 | 2-1/2" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS. |

CONTINUED ON SHEET E-13



777 S. Harbour Island Blvd.
Suite 350
Tampa, FL 33602
813.227.9190
Certificate of Authorization No. 8363

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|----------|-----------|-----|------|----|-----|----------|-------------|--|--|
| JOB No. | 231803742 | | | | | | | | |
| DESIGNED | TDT | | | | | | | | |
| DRAWN | JLH | | | | | | | | |
| CHECKED | TDT | | | | | | | | |
| DATE | 3/2019 | No. | DATE | BY | APP | REVISION | DESCRIPTION | | |

SCALE

NOT TO SCALE

City of Tampa Wastewater Department
SCREEN & GRIT BUILDING No. 1
MCC 29 REPLACEMENT

MCC-29 CONDUIT AND CABLE SCHEDULE
(SHEET 1 OF 3)

TIMOTHY THOMAS, P.E. No. 47079

SHEET NUMBER
E-12
FILE: 231803742

CONDUIT AND CABLE SCHEDULE

| CONDUIT No. | SIZE | NUMBER OF CONDUCTORS/SIZE | FROM | TO | REMARKS |
|-------------|--------|--------------------------------|------------------------|------------------------|---------------------------------------------------------------------------------|
| 29M15 | 1-1/4" | 3-#6 + 1-#10 GND | MCC-29 | SG-WO-2 | 1-1/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M17A | 3" | 3-350MCM + 1-#1/O N + 1-#1 GND | 480V SWGR NO. 28 | MCC-29 | 3" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M17B | 3" | 3-350MCM + 1-#1/O N + 1-#1 GND | 480V SWGR NO. 28 | MCC-29 | 3" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M18A | 3" | 3-350MCM + 1-#1/O N + 1-#1 GND | 480V SWGR NO. 28 | MCC-29 | 3" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M18B | 3" | 3-350MCM + 1-#1/O N + 1-#1 GND | 480V SWGR NO. 28 | MCC-29 | 3" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M19 | 3/4" | 3-#12 + 1-#12 GND | MCC-29 | SG-RD-6 CONTROL PANEL | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M19A | 3/4" | 3-#12 + 1-#12 GND | SG-RD-6 CONT. PNL | SG-RD-6 | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M19B | 3/4" | 2-#14 + 1-#14 GND | SG-RD-6 CONT. PNL | BOTTOM BAR | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M19C | 3/4" | 6-#14 + 1-#14 GND | SG-RD-6 CONT. PNL | PUSHBUTTON STATION | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M20 | 3/4" | 3-#12 + 1-#12 GND | MCC-29 | SG-RD-8 CONTROL PANEL | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M20A | 3/4" | 3-#12 + 1-#12 GND | SG-RD-8 CONT. PNL | SG-RD-8 | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M20B | 3/4" | 2-#14 + 1-#12 GND | SG-RD-8 CONT. PNL | BOTTOM BAR | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M20C | 3/4" | 6-#14 + 1-#12 GND | SG-RD-8 CONT. PNL | PUSHBUTTON STATION | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M21 | 2-1/2" | 4-#2 + 1-#8 GND | MCC-29 | LP-28 | 2-1/2" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M23 | 1-1/4" | 6-#12 + 4-#14 | MCC-29 | JB NEAR SG-S-10 | 1-1/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M23A | 1" | 6-#12 + 1-#12 GND | JB NEAR SG-S-10 | SG-S-10 | 1" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M23B | 3/4" | 4-#14 + 1-#12 GND | JB NEAR SG-S-10 | PUSHBUTTON STATION | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M24 | 1" | 3-#12 + 3-#14 + 1-#12 GND | MCC-29 | JB NEAR SG-S-4 | 1" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M24A | 3/4" | 3-#12 + 1-#12 GND | JB NEAR SG-S-4 | SG-S-4 | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M24B | 3/4" | 3-#14 + 1-#12 GND | JB NEAR SG-S-4 | PUSHBUTTON STATION | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M25 | 1" | 3-#12 + 3-#14 | MCC-29 | JB NEAR SG-S-6 | 1" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M25A | 3/4" | 3-#12 + 1-#12 GND | JB NEAR SG-S-6 | SG-S-6 | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M25B | 3/4" | 3-#14 + 1-#14 GND | JB NEAR SG-S-6 | PUSHBUTTON STATION | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M26 | 1" | 3-#12 + 1-#12 GND | MCC-29 | DISCONNECT NEAR SG-EFC | 1" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS |
| 29M26A | 3/4" | 3-#12 + 1-#12 GND | DISCONNECT NEAR SG-EFC | SG-EFC | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS |
| 29M27 | 1" | 3-#12 + 1-#12 GND | MCC-29 | DISCONNECT NEAR SG-EFA | 1" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS |
| 29M27A | 3/4" | 3-#12 + 1-#12 GND | DISCONNECT NEAR SG-EFA | SG-EFA | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING, PROVIDE NEW CONDUCTORS |
| 29M28 | 1" | 3-#12 + 3-#14 + 1-#12 GND | MCC-29 | JB NEAR SG-S-14 | 1" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M28A | 3/4" | 3-#12 + 1-#12 GND | JB NEAR SG-S-14 | SG-S-14 | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M28B | 3/4" | 3-#14 + 1-#14 GND | JB NEAR SG-S-14 | PUSHBUTTON STATION | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M29 | 1" | 3-#12 + 3-#14 + 1-#12 GND | MCC-29 | JB NEAR SG-REF-16 | 1" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M29A | 3/4" | 3-#12 + 1-#12 GND | JB NEAR SG-REF-16 | SG-REF-16 | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M29B | 3/4" | 3-#14 + 1-#14 GND | JB NEAR SG-REF-16 | PUSHBUTTON STATION | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M30 | 1" | 3-#12 + 3-#14 + 1-#12 GND | MCC-29 | JB NEAR SG-REF-18 | 1" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M30A | 3/4" | 3-#12 + 1-#12 GND | JB NEAR SG-REF-18 | SG-REF-18 | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M30B | 3/4" | 3-#14 + 1-#12 GND | JB NEAR SG-REF-18 | PUSHBUTTON STATION | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M31 | 1" | 3-#12 + 3-#14 + 1-#12 GND | MCC-29 | JB NEAR SG-REF-20 | 1" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M31A | 3/4" | 3-#12 + 1-#12 GND | JB NEAR SG-REF-20 | SG-REF-20 | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M31B | 3/4" | 3-#14 + 1-#14 GND | JB NEAR SG-REF-20 | PUSHBUTTON STATION | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |

CONTINUED ON SHEET E-14



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|----------|-----------|-----|------|----|-----|----------|-------------|
| JOB No. | 231803742 | | | | | | |
| DESIGNED | TDI | | | | | | |
| DRAWN | JLH | | | | | | |
| CHECKED | TDI | | | | | | |
| DATE | 3/2019 | No. | DATE | BY | APP | REVISION | DESCRIPTION |

SCALE

NOT TO SCALE

City of Tampa Wastewater Department
SCREEN & GRIT BUILDING No. 1
MCC 29 REPLACEMENT

MCC-29 CONDUIT AND CABLE SCHEDULE
(SHEET 2 OF 3)

| | |
|--------------------------------|-----------------|
| SHEET NUMBER | E-13 |
| TIMOTHY THOMAS, P.E. No. 47079 | FILE: 231803742 |

CONDUIT AND CABLE SCHEDULE

| CONDUIT No. | SIZE | NUMBER OF CONDUCTORS/SIZE | FROM | TO | REMARKS |
|-------------|--------|---------------------------|-------------------|--------------------|---------------------------------------------------------------------------------|
| 29M32 | 1" | 3-#12 + 3-#14 + 1-#12 GND | MCC-29 | JB NEAR SG-REF-22 | 1" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M32A | 3/4" | 3-#12 + 1-#12 GND | JB NEAR SG-REF-22 | SG-REF-22 | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M32B | 3/4" | 3-#14 + 1-#14 GND | JB NEAR SG-REF-22 | PUSHBUTTON STATION | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M33 | 1" | 3-#12 + 3-#14 + 1-#12 GND | MCC-29 | JB NEAR SG-REF-24 | 1" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M33A | 3/4" | 3-#12 + 1-#12 GND | JB NEAR SG-REF-24 | SG-REF-24 | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29M33B | 3/4" | 3-#14 + 1-#14 GND | JB NEAR SG-REF-24 | PUSHBUTTON STATION | 3/4" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29C1A | 2-1/2" | 6-12/C#14 | MCC-29 | SG-TCP-1 | 2-1/2" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29C1B | 2-1/2" | 5-12/C#14 | MCC-29 | SG-TCP-1 | 2-1/2" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |
| 29C2 | 2-1/2" | 5-12/C#14 | MCC-29 | TERMINAL BOX | 2-1/2" CONDUIT IS EXISTING TO BE REUSED AFTER CLEANING. PROVIDE NEW CONDUCTORS. |



| | | | | | | | | | |
|----------|-----------|-----|------|----|-----|----------|-------------|--|--|
| JOB No. | 231803742 | | | | | | | | |
| DESIGNED | TDT | | | | | | | | |
| DRAWN | JLH | | | | | | | | |
| CHECKED | TDT | | | | | | | | |
| DATE | 3/2019 | No. | DATE | BY | APP | REVISION | DESCRIPTION | | |

SCALE

NOT TO SCALE

City of Tampa Wastewater Department

SCREEN & GRIT BUILDING No. 1

MCC 29 REPLACEMENT

MCC-29 CONDUIT AND

CABLE SCHEDULE

(SHEET 3 OF 3)

TIMOTHY THOMAS, P.E. No. 47079

SHEET NUMBER

E-14

FILE: 231803742