



INFORMATION TO PROPOSERS
for

**(C3) RFP No. E21-031
Juneau Douglas Treatment Plant
Motor Control Center Upgrades**

ISSUED BY:

City and Borough of Juneau
ENGINEERING DEPARTMENT
155 South Seward Street
Juneau, Alaska 99801

Date Issued: June 29, 2020

The following information is posted online. Please refer to the CBJ Engineering Contracts Division webpage at: <http://www.juneau.org/engineering ftp/contracts/Contracts.php>. This is *not* an addendum.

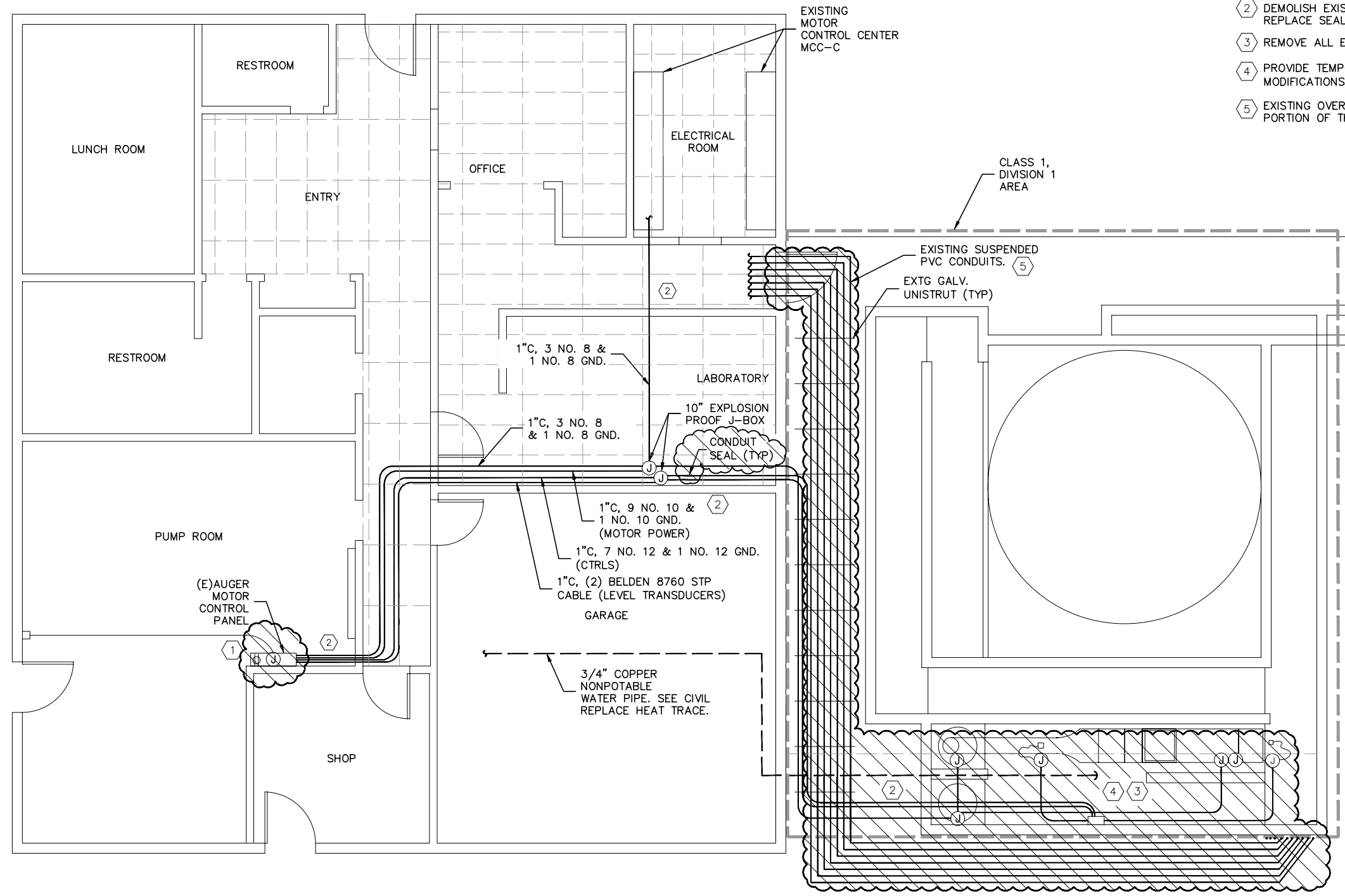
- ❖ In order to provide prospective proposers with information pertaining to the original MCC installation and a recent modifications, please see the attached drawings.

By: _____

Greg Smith,
Contract Administrator

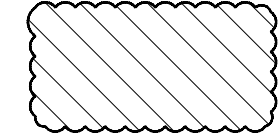
Total number of pages contained within this Information to Proposers: 15

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- NOTES:**
- 1 DEMOLITION TO BE COORDINATED WITH CONSTRUCTION SEQUENCE AND PLANT PERSONNEL TO KEEP PLANT OPERATIONAL AT ALL TIMES. ALL ITEMS SHOWN ON THIS DRAWING ARE EXISTING.
 - 2 AFTER NEW SCREEN EQUIPMENT IS COMMISSIONED AND IN SERVICE REMOVE EXISTING CONTROL PANEL.
 - 3 DEMOLISH EXISTING WIRE AND Poured CONDUIT SEALS. CONDUIT TO BE REUSED. REPLACE SEALS AFTER NEW INSTALLATIONS.
 - 4 REMOVE ALL ELECTRICAL COMPONENTS OF AUGER SYSTEM.
 - 5 PROVIDE TEMPORARY SUPPORT AS REQUIRED TO ALLOW BUILDING MODIFICATIONS INCLUDING WALL REMOVAL. SEE ARCHITECTURAL DWGS.
 - 6 EXISTING OVERHEAD PVC CONDUITS TO BE REPLACED WHEN THE UNDERGROUND PORTION OF THE CONDUIT IS RELOCATED.

DEMOLITION LEGEND:



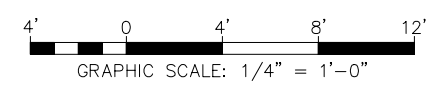
EQUIPMENT IN CLOUDED AREAS TO BE SELECTIVELY DEMOLISHED AS REQUIRED AND IN ACCORDANCE WITH CONSTRUCTION SEQUENCING PLAN.

EXISTING CONTROL BUILDING ELECTRICAL PLAN

HEADWORKS AND GRIT REMOVAL FACILITY

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DEMOLITION



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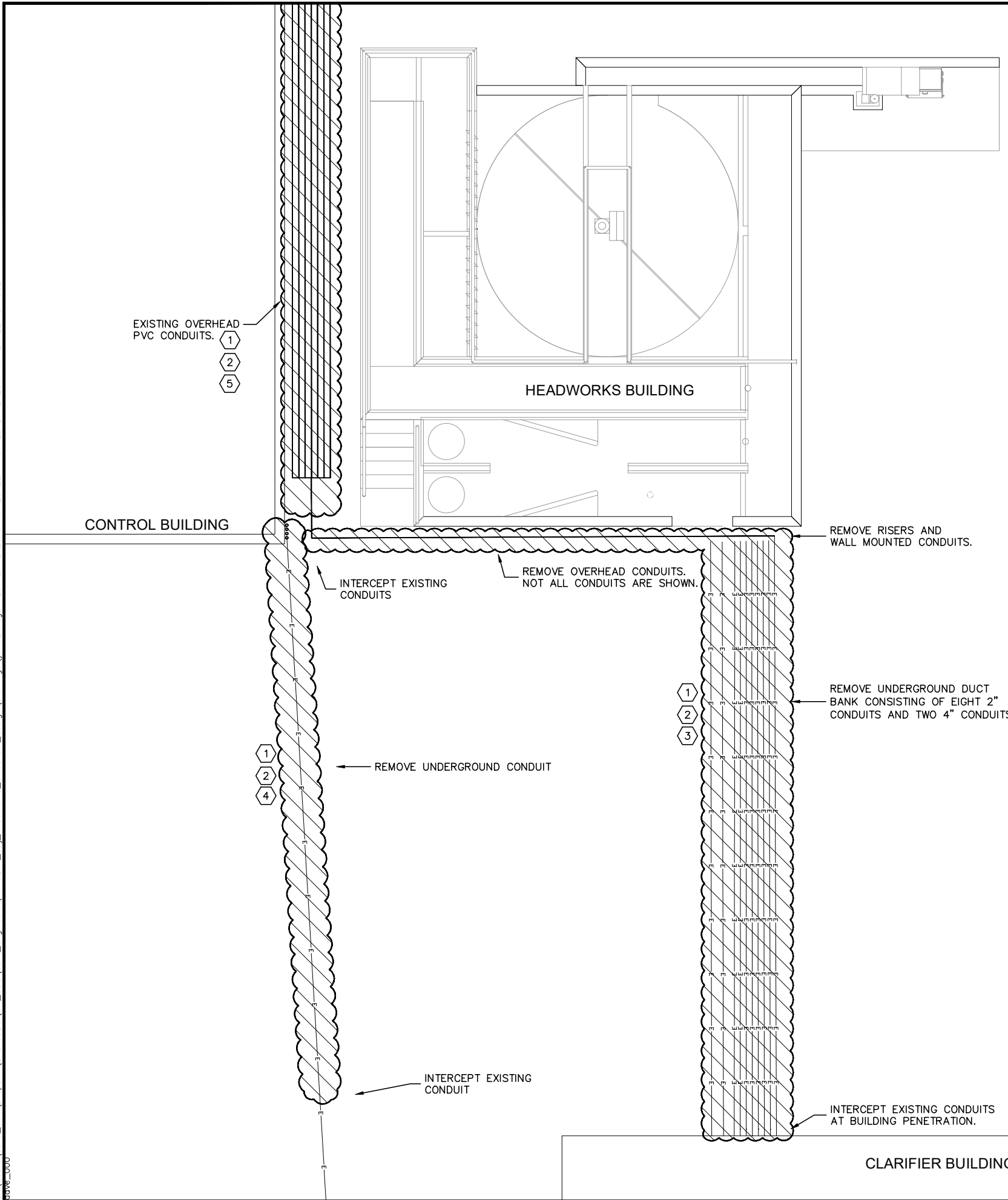
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CBJ HEADWORKS IMPROVEMENTS
CONTRACT No. BE17-033
JUNEAU DOUGLAS DEMOLITION
HEADWORKS ELECTRICAL
DEMOLITION PLAN

PROJECT 4029.21157.01
DATE 10/24/2016

SHEET 21 OF 61
JD-01

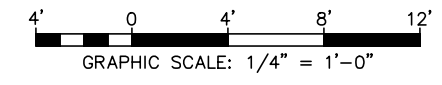
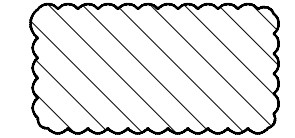
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NOTES:

1. DEMOLITION TO BE COORDINATED WITH PLANT PERSONNEL TO KEEP PLANT OPERATIONAL AT ALL TIMES. OUTAGES TO CLARIFIER BUILDING EQUIPMENT ARE LIMITED TO TWO HOURS. COMMUNICATIONS OUTAGES TO INCINERATOR AND UV BUILDING ARE LIMITED TO TWO DAYS.
 2. ALL EXISTING CONDUITS ARE TO BE CLEANED PRIOR TO INSTALLATION OF NEW CABLES.
 3. UTILITY LOCATES REQUIRED FOR ALL EXCAVATION. ADDITIONAL UTILITIES ARE IN THE VICINITY WHICH ARE NOT SHOWN ON PLANS.
-
- ① FIELD LOCATE AND VERIFY ALL CIRCUITS TO BE RELOCATED.
 - ② ANY EQUIPMENT OUTAGES ARE TO BE SCHEDULED WITH PLANT PERSONNEL
 - ③ TWO 4" CONDUITS ARE SPARES AND ARE TO BE DEMOED ONLY. NO REPLACEMENT REQUIRED.
 - ④ TWO 2" CONDUITS ARE SPARES. THE REMAINING TWO CONDUITS PROVIDE COMMUNICATIONS TO INCINERATOR AND UV BUILDING. ALL FOUR CONDUITS ARE TO BE RELOCATED TO AVOID NEW BUILDING ADDITION. SEE INSTALLATION SHEETS FOR ADDITIONAL INFORMATION.
 - ⑤ EXISTING OVERHEAD PVC CONDUITS TO BE REPLACED WITH RGS. SEE JD-1 FOR CONTINUATION.

DEMOLITION LEGEND:



DEMOLITION



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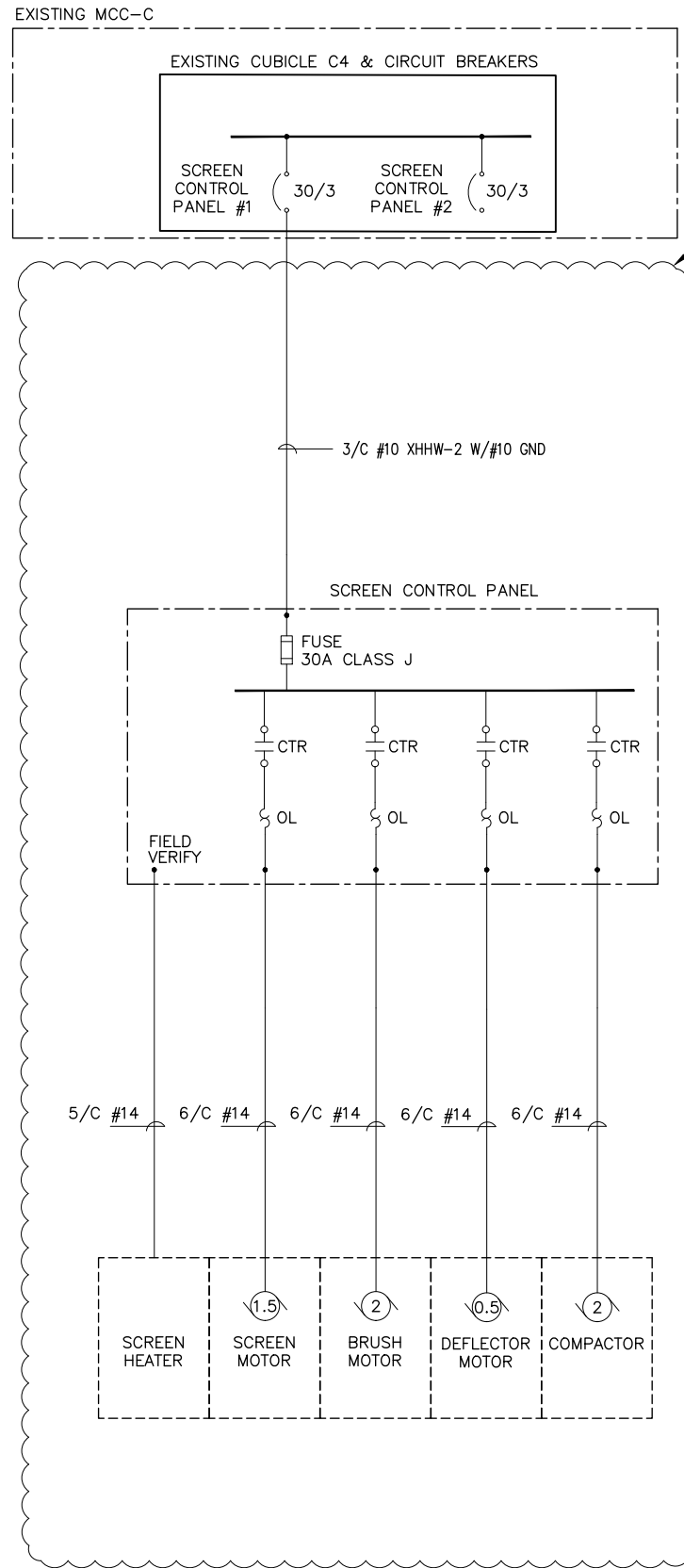
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JUNEAU DOUGLAS DEMOLITION
SITE ELECTRICAL DEMOLITION PLAN

PROJECT 4029.21157.01
DATE 10/24/2016

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JD-02

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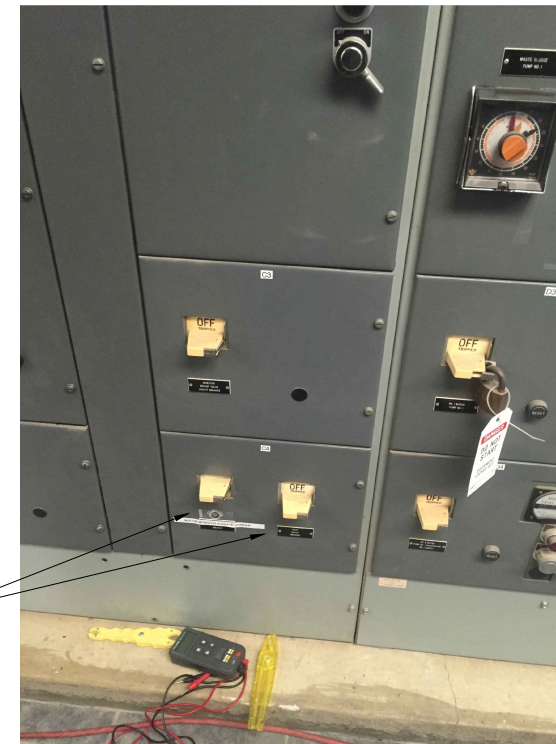


ONE LINE DIAGRAM - TYPICAL OF 2

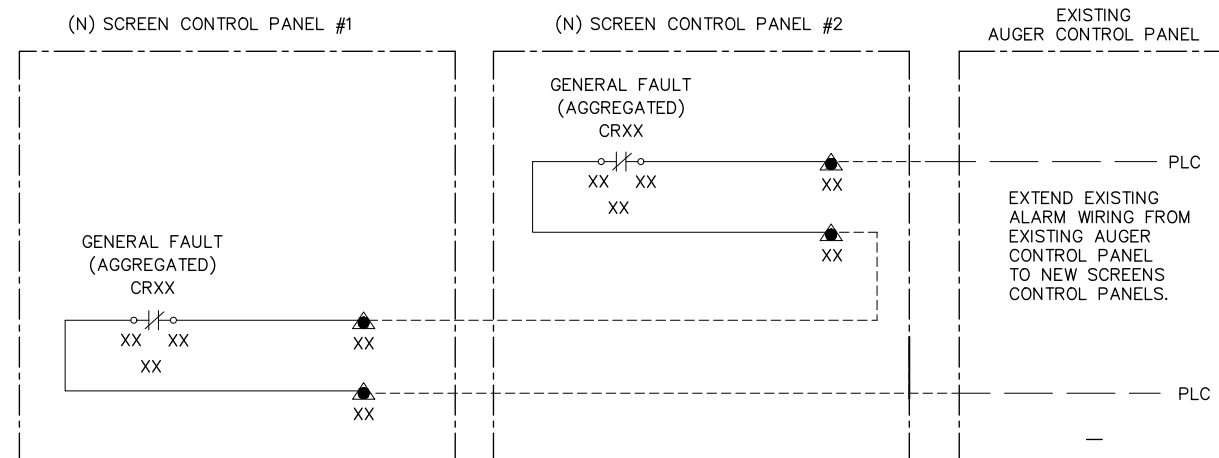
TYPICAL OF EACH SCREEN AND CONTROL PANEL
NOT ALL WIRING SHOWN. SEE SCREEN CABLE SCHEDULE
FOR COMPLETE LIST OF POWER AND CONTROL CABLES

CONTRACTOR INSTALLATION SCOPE

REUSE EXISTING BREAKERS



JDWWTP MCC-C EXISTING BREAKERS



CONTROL PANEL EXTERNAL OUTPUT SCHEMATIC

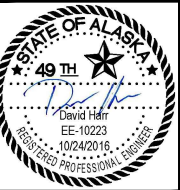
LEGEND

- FIELD WIRING: #14 XHHW
- _____ EXISTING FIELD WIRING
- ▲ SCREEN CONTROL PANEL TERMINALS. EXTERNALLY POWERED.
- CTR - CONTACTOR
- OL - OVERLOAD
- XX - INDICATES TERMINATION TO BE FIELD IDENTIFIED

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CBJ HEADWORKS IMPROVEMENTS
CONTRACT No. BE17-033
JUNEAU DOUGLAS ELECTRICAL
SINGLE LINE DIAGRAMS

PROJECT 4029.21157.01
DATE 10/24/2016

SHEET 54 OF 61
JE-01

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HEADWORKS PROJECT - NEW CABLE SCHEDULE							
FROM (SOURCE)	TO	FUNCTION	CABLE/WIRE QTY/SIZE/ TYPE	CABLE/WIRE NO.	CONDUIT	REFERENC DRAWINGS	REMARKS
MOTOR CONTROL CENTER C4	CONTROL PANEL	CONTROL PANEL FEEDER	4/C #10CU XHHW-2		1" RGS		
CONTROL PANEL	SCREEN MOTOR	MOTOR CIRCUIT	4/C #14 CU XHHW-2		1" RGS		
CONTROL PANEL	BRUSH MOTOR	MOTOR CIRCUIT	4/C #14 CU XHHW-2				
CONTROL PANEL	DEFLECTOR MOTOR	MOTOR CIRCUIT	4/C #14 CU XHHW-2				
CONTROL PANEL	COMPACTOR	MOTOR CIRCUIT	4/C #14 CU XHHW-2				
CONTROL PANEL	SCREEN HEATER	SCREEN HEATER POWER	3/C #14 CU XHHW-2				
CONTROL PANEL	CONTROL NETWORK SWITCH	SCADA COMMUNICATIONS	CAT 6 ETHERNET CABLE		3/4" EMT	JE-05	
CONTROL PANEL	CONTROL PLC	SCADA ALARM CONTROL	2/C #16 XHHW-2		EXISTING/NEW	JE-01	EXTEND CIRCUIT TO NEW PANEL #2
CONTROL PANEL	COMPACTOR OPERATOR STATION	MULTIPLE - SEE FOLLOWING LINES					
	120VAC CONTROL POWER		1/C #12 XHHW-2 + #12 XHHW-2 GND		1 1/4" RGS		120VAC TO CONTROL STATION
	COMPACTOR H.O.A.		3/C #16 XHHW-2				
	COMPACTOR FORWARD/REVERSE SWITCH		2/C #16 XHHW-2				
	HOPPER SPRAY H.O.A.		2/C #16 XHHW-2				
	TROUGH FLUSH H.O.A.		2/C #16 XHHW-2				
	E-STOP		2/C #16 XHHW-2				
CONTROL PANEL	SCREEN OPERATOR STATION	MULTIPLE - SEE FOLLOWING LINES					
	120VAC CONTROL POWER		1/C #12 XHHW-2 + 1/C #12 XHHW-2 GND				120VAC TO CONTROL STATION
	SCREEN H.O.A.		3/C #16 XHHW-2				
	SPRAY HAND/OFF/AUTO SWITCH		2/C #16 XHHW-2				
	E-STOP		2/C #16 XHHW-2				
CONTROL PANEL	SOLENOID VALVE(S)	MULTIPLE - SEE FOLLOWING LINES			1" RGS		
CONTROL PANEL	SCREEN WASHWATER SOLENOID VALVE		2/C #16 XHHW-2 + #16 XHHW-2 GND				
CONTROL PANEL	HOPPER WASHWATER SOLENOID VALVE		2/C #16 XHHW-2 + #16 XHHW-2 GND				
CONTROL PANEL	COMPACTOR WASHWATER SOLENOID VALVE		2/C #16 XHHW-2 + #16 XHHW-2 GND				
CONTROL PANEL	TROUGH WASHWATER SOLENOID VALVE		2/C #16 XHHW-2 + #16 XHHW-2 GND				
CONTROL PANEL	THERMOSTAT 120VAC CONTROL POWER		1/C #16 XHHW-2 + #16 XHHW-2 GND		1" RGS		120VAC TO ALL THERMOSTATS
CONTROL PANEL	SCREEN MOTOR THERMOSTAT		1/C #16 XHHW-2				
CONTROL PANEL	BRUSH MOTOR THERMOSTAT		1/C #16 XHHW-2				
CONTROL PANEL	DEFLECTOR MOTOR THERMOSTAT		1/C #16 XHHW-2				
CONTROL PANEL	COMPACTOR MOTOR THERMOSTAT		1/C #16 XHHW-2				
CONTROL PANEL	SCREEN HEATER THERMOSTAT		1/C #16 XHHW-2				
CONTROL PANEL	LEVEL TRANSMITTER	120V POWER	2/C #14 XHHW-2 + #14 XHHW-2 GND		3/4" RGS		
CONTROL PANEL	LEVEL TRANSMITTER	HIGH LEVEL CONTACT	2/C #16 XHHW-2 + #16 XHHW-2 GND				
LEVEL TRANSMITTER	LEVEL SENSOR - DOWNSTREAM & UPSTREAM		2C/ 18/2 SHIELDED		3/4" RGS		
LEVEL TRANSMITTER	CONTROL PANEL	4-20mA OUTPUT	2C/ 18/2 SHIELDED		3/4" RGS		CONNECT AT CONTROLLER
CONTROL PANEL	HIGH LEVEL FLOAT		2/C #16 XHHW-2 + #16 XHHW-2 GND		1/2" RGS		

SCREEN EQUIPMENT CABLE SCHEDULE

NOTES:

- CABLE SCHEDULE IS TYPICAL OF ONE SCREEN AND CONTROL PANEL INSTALLATION.
- DEMOLITION AND CONDUIT RELOCATIONS NOT SHOWN IN CABLE SCHEDULE.
- THIS SCHEDULE IS TYPICAL OF DESIGN BASIS EQUIPMENT. SCHEDULE SHALL BE UPDATED AND SUBMITTED FOR APPROVAL BY THE CONTRACTOR BASED ON ACTUAL EQUIPMENT PROVIDED.

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CONTRACT No. BE17-033
JUNEAU DOUGLAS ELECTRICAL
SCREEN EQUIP. CABLE SCHEDULE

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HEADWORKS PROJECT - NEW CONDUCTOR SCHEDULE - UNDERGROUND CONDUIT RELOCATIONS							
FROM (SOURCE)	TO	FUNCTION	CABLE/WIRE SIZE AND TYPE	ESTIMATED REPLACEMENT CONDUCTOR DISTANCE (FT.)	REPLACEMENT CONDUIT	ESTIMATED REPLACEMENT CONDUIT DISTANCE (FT.)	REMARKS
HEADWORKS EXTERIOR	CLARIFIER BUILDING EXTERIOR	SPARE	N/A		2" RGS & PVC		
MCC ROOM	CLARIFIER BUILDING	UNKNOWN	4/C #8 CU XHHW-2	350	2" RGS & PVC	100	
MCC ROOM	CLARIFIER BUILDING	UNKNOWN	7/C #12 CU XHHW-2	350	2" RGS & PVC	100	
MCC ROOM	CLARIFIER BUILDING	UNKNOWN	6/C #12 CU XHHW-2	350	2" RGS & PVC	100	
MCC ROOM	CLARIFIER BUILDING	UNKNOWN	13/C #14 CU XHHW-2	350	2" RGS & PVC	100	
MCC ROOM	CLARIFIER BUILDING	UNKNOWN	11/C #12 CU XHHW-2	350	2" RGS & PVC	100	
MCC ROOM	CLARIFIER BUILDING	UNKNOWN	7/C #8 CU XHHW-2	350	2" RGS & PVC	100	
HALLWAY (NEXT TO MCC ROOM)	CLARIFIER BUILDING	UNKNOWN	3 EA. - BELDEN 1120A	350	2" RGS & PVC	100	
CONTROL BUILDING	INCINERATOR BLDG/UV BLDG	TELECOMMUNICATIONS	2 EA. - 50 PAIR CU TELEPHONE CABLE	550	2" RGS & PVC	70	FIELD VERIFY AND MATCH EXISTING
CONTROL BUILDING	INCINERATOR BLDG/UV BLDG	ETHERNET	CAT 6	550	2" RGS & PVC	70	FIELD VERIFY AND MATCH EXISTING

EXISTING UNDERGROUND CABLE RELOCATION SCHEDULE

HEADWORKS PROJECT - BUILDING SUPPORT CABLE SCHEDULE							
FROM (SOURCE)	TO	FUNCTION	CABLE/WIRE QTY/SIZE/ TYPE	CABLE/WIRE NO.	CONDUIT	REFERENC DRAWINGS FOR EQUIPMENT WIRING	REMARKS
MCC-C PANEL-L	SCREENS ROOM	LIGHTING & FAN POWER	3/C #12 XHHW-2		1" RGS	JE-08	
MCC-C PANEL-M CKT-11	ROOF DRAIN AND WATER PIPING HEAT TRACE	HEAT TRACE POWER	3/C #12 XHHW-2		1" RGS	JE-06	

BUILDING SUPPORT CABLE SCHEDULE

NOTES:

- SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION REGARDING LOCATIONS AND CUTOVERS CONDUCTOR LENGTHS IS ESTIMATED LINEAR DISTANCE BETWEEN START AND END OF CIRCUIT.
- TOTAL WIRE LENGTH REQUIRED FOR RELOCATED WIRING IS TO BE CONTRACTOR DETERMINED.
- NO NEW SPLICE POINTS ARE PERMITTED.
- PVC CONDUITS ALLOWED UNDERGROUND ONLY. PVC TO BE BURIED 24" BELOW GRADE WITH RGS RISERS.

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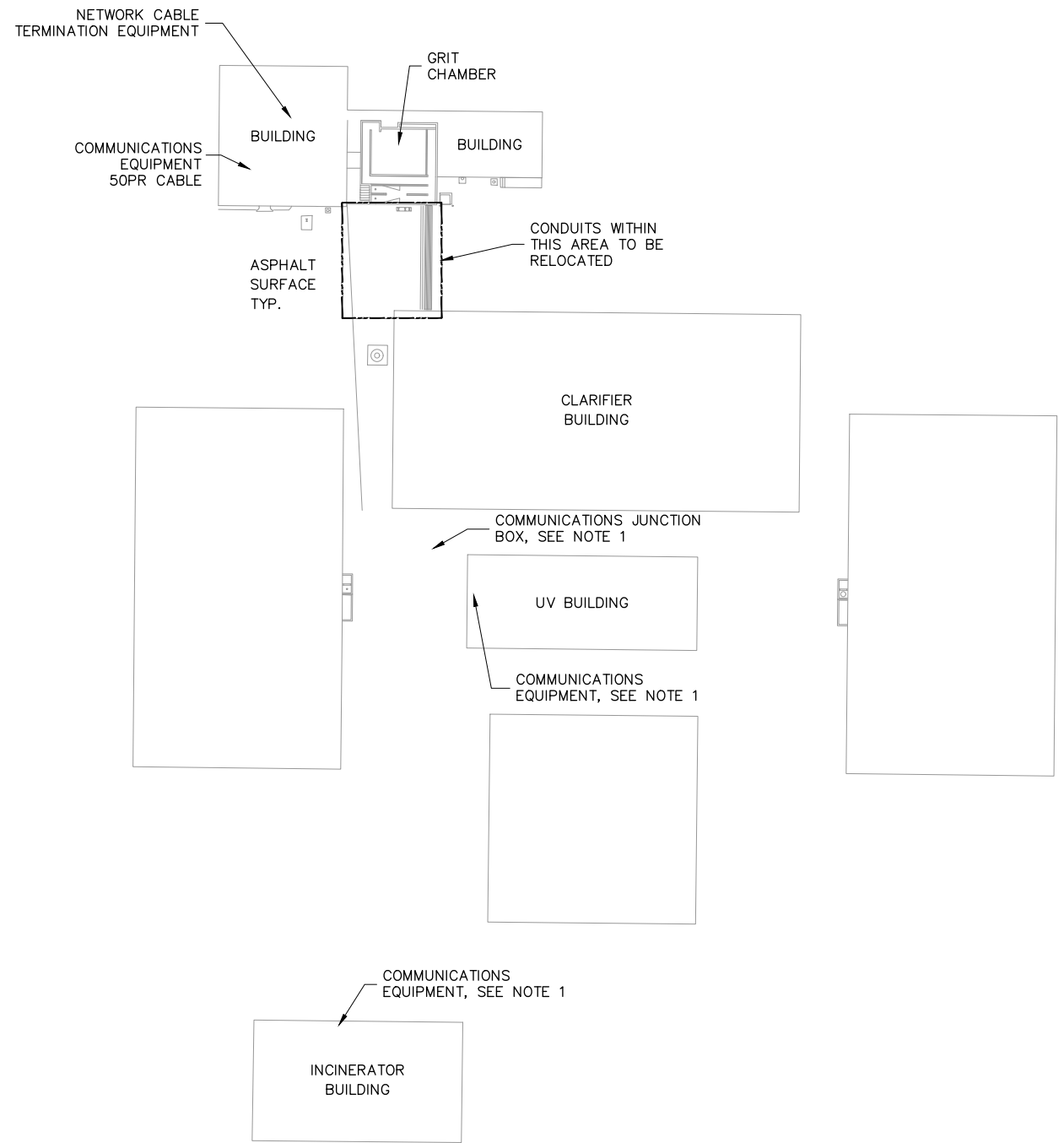
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CONTRACT No. BE17-033
JUNEAU DOUGLAS ELECTRICAL
CABLE SCHEDULES

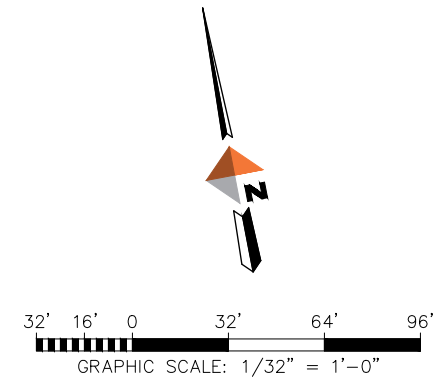
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DATE 10/24/2016

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JE-03

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- NOTES:**
1. THIS DRAWING SHOWS GENERAL LOCATION OF TERMINATION OF COMMUNICATION CABLES SCHEDULED TO BE RELOCATED. CONTRACTORS SHALL FIELD LOCATE EXACT TERMINATION LOCATIONS AND ROUTING.
 2. SEE JE-3 FOR CONDUIT/CABLE RELOCATION SCHEDULE.
 3. RELOCATE CONDUITS IN IN AREA SHOWN. SEE JD-2 AND JE-6 FOR RELOCATION PLANS. OUTSIDE FOOTPRINT OF HEADWORKS ADDITION EXISTING CONDUITS TO BE INTERCEPTED UNDERGROUND AND REUSED.
 4. ALL CONDUITS TO BE REUSED SHALL BE CLEANED PRIOR TO CABLE INSTALLATION.



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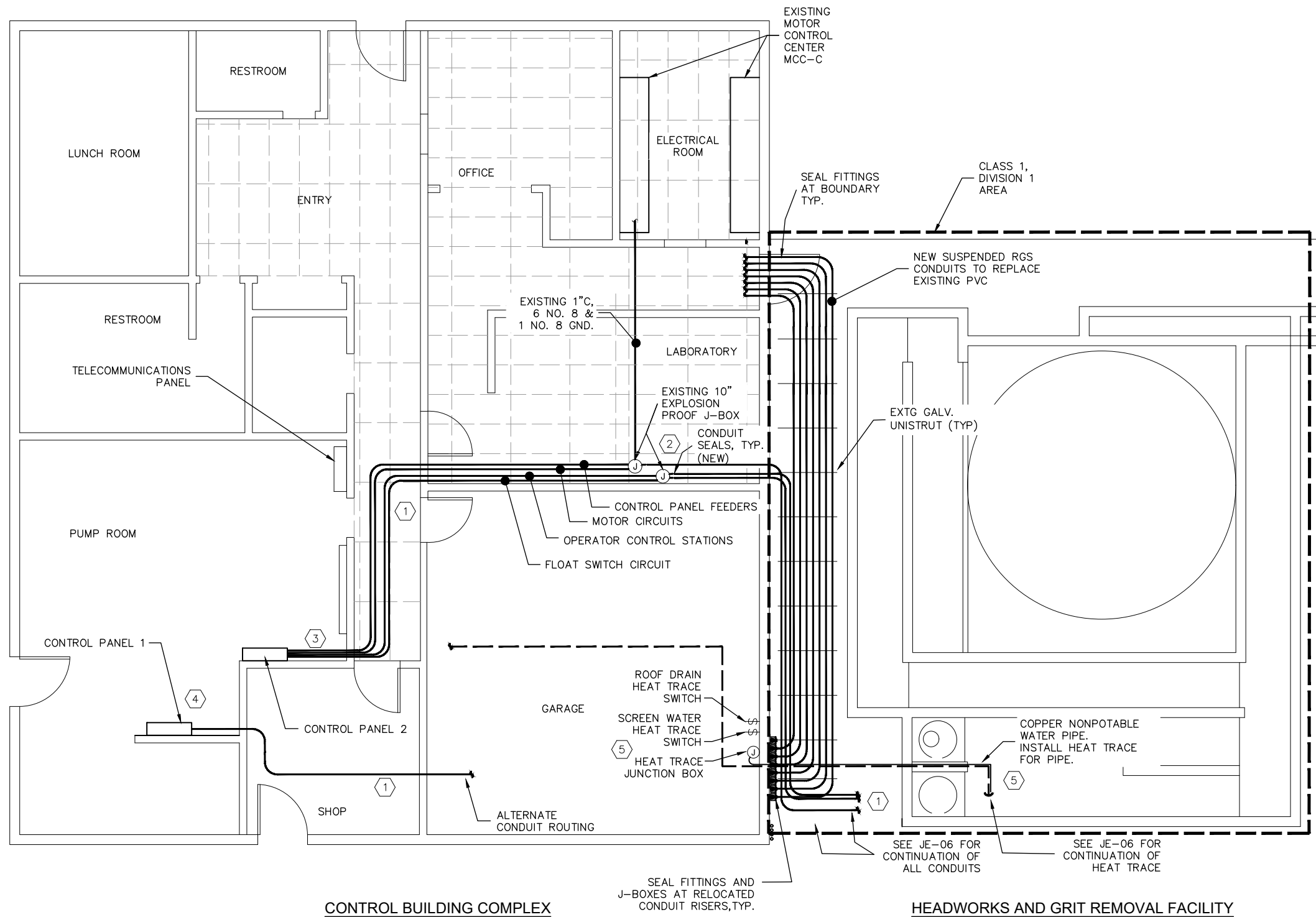
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COMMUNICATIONS CABLE RELOCATE
SITE PLAN

PROJECT 4029.21157.01
DATE 10/24/2016

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JE-04

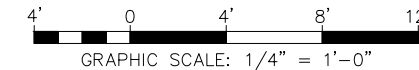
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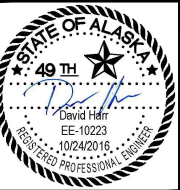
NOTES:

- ① NOT ALL CONDUITS SHOWN. REFER TO CABLE AND CONDUIT SCHEDULE. CONDUIT ROUTING TO BE DETERMINED IN THE FIELD.
- ② REPLACE CONDUIT SEALS AFTER NEW WIRING INSTALLED AND EQUIPMENT IS TESTED.
- ③ THREE 1" CONDUITS FROM THE EXISTING AUGER CONTROL PANEL TO THE HEADWORKS AREA ARE AVAILABLE FOR REUSE. ALL OTHER REQUIRED CONDUITS ARE TO BE NEW.
- ④ CONTROL PANEL 1 AND ACCOMPANYING SCREEN MUST BE INSTALLED, COMMISSIONED AND ON-LINE PRIOR TO REMOVAL OF EXISTING AUGER CONTROL PANEL.
- ⑤ SEE JE-06 FOR HEAT TRACE SPECIFICATIONS.

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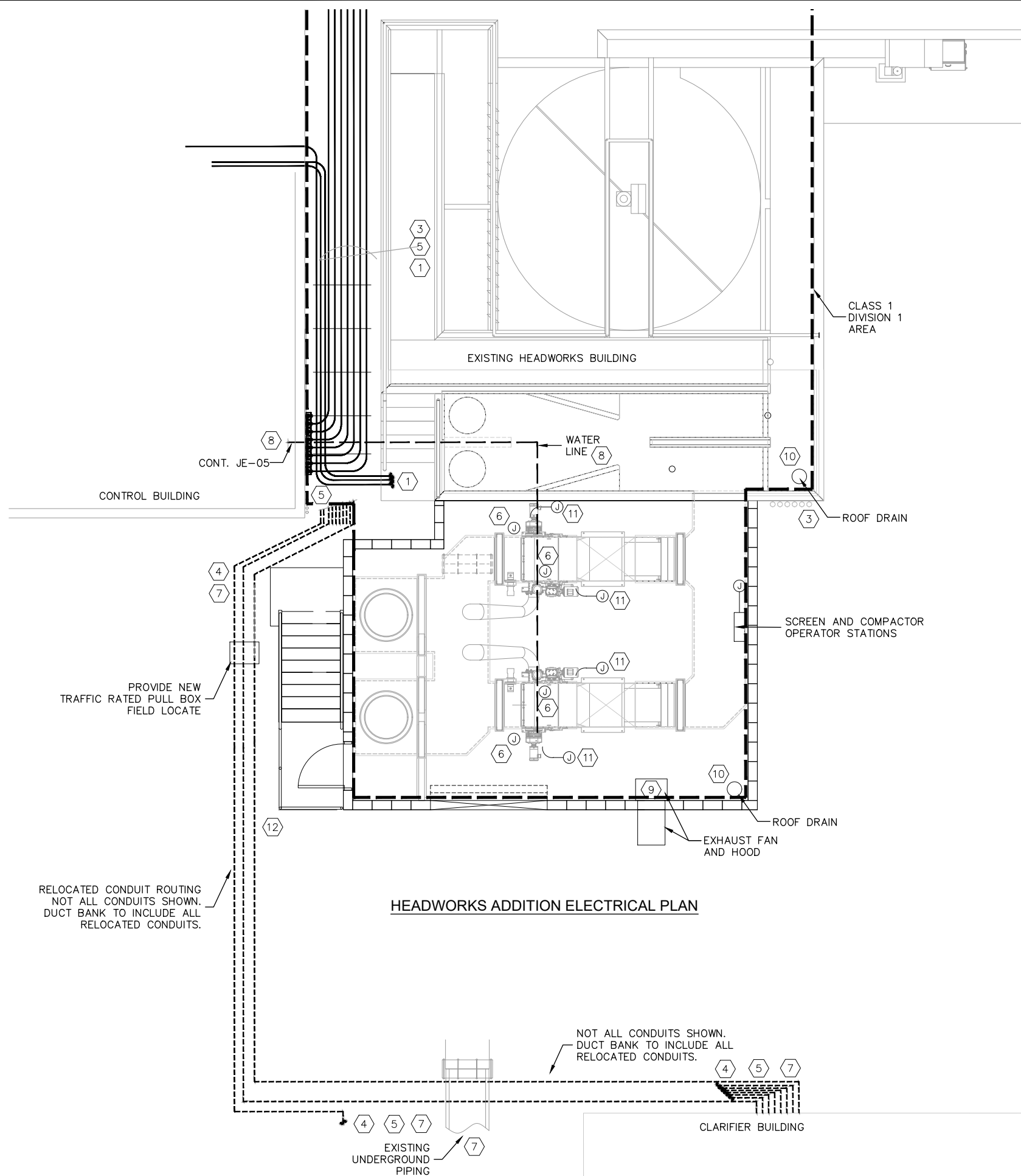
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EXISTING BUILDING ELECTRICAL PLAN

PROJECT 4029.21157.01
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JE-05

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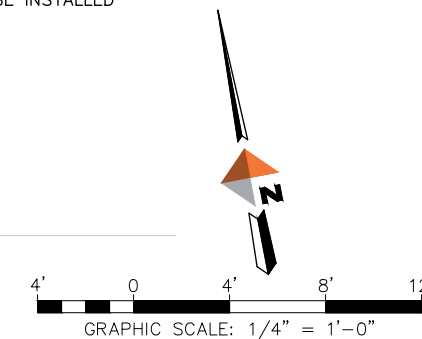
HEADWORKS ADDITION ELECTRICAL PLAN

--- CLASS 1 DIVISION 1 BOUNDARY (C1D1)

NOTES:

- 1 NEW CONDUIT ROUTING TO BE DETERMINED IN THE FIELD. PROVIDE OVERHEAD STRUT RACKS AS REQUIRED FOR CONDUIT SUPPORT. REUSE EXISTING RACKS & CONDUITS WHERE EXPEDIENT.
- 2 CONDUIT SEALS PER NEC AND CLASSIFIED BOUNDARY.
- 3 EXISTING UNDERGROUND CONDUITS AND OVERHEAD PVC TO BE RELOCATED SEE JD-01 AND JD-02.
- 4 RELOCATE EXISTING CONDUITS FOR NEW ADDITION. SEE JD-02 FOR EXISTING CONDUIT LOCATIONS. SEE JE-03 FOR CABLE RELOCATION SCHEDULE. FIELD LOCATE AND ROUTE NEW CONDUITS AROUND NEW ADDITION AND EXISTING UTILITIES. INSTALL NEW CONDUCTORS SIZED TO MATCH EXISTING FOR ALL EXISTING CIRCUITS. MAXIMUM OUTAGE TIME FOR ANY RELOCATED CIRCUIT IS TWO HOURS. CONTRACTOR TO SCHEDULE ALL OUTAGES WITH CBJ OPERATIONS PERSONNEL. UNDERGROUND CONDUIT BURIAL DEPTH: 36", TYP.
- 5 OVERHEAD CONTINUATION OF RELOCATED UNDERGROUND CONDUCTORS. REPLACE EXISTING OVERHEAD PVC CONDUITS WITH RGS. PROVIDE CONDUITS SEALS AND CLASS 1 DIVISION 1 JUNCTION BOXES AT RELOCATED CONDUIT RISERS AT CONTROL/HEADWORKS BUILDING. CONDUITS SHALL STUB UP 6" ABOVE CONCRETE FINISH GRADE WITHOUT COUPLINGS. ROUTE CONDUITS OVERHEAD TO MCC-C. REUSE STRUT RACK OR PROVIDE NEW AS REQUIRED FOR INSTALLATION PER CONSTRUCTION SEQUENCING PLAN. PROVIDE SEAL FITTINGS WHERE CONDUITS ENTER CONTROL BUILDING OVERHEAD.
- 6 FLOAT AND SOLENOID VALVE(S) LOCATIONS ARE TO BE COORDINATED WITH MECHANICAL CONTRACTOR. SEE CABLE SCHEDULE FOR ADDITIONAL DETAILS
- 7 UTILITY LOCATES REQUIRED FOR ALL EXCAVATION. ADDITIONAL UTILITIES ARE IN VICINITY WHICH ARE NOT SHOWN ON PLANS.
- 8 PROVIDE HEAT TRACE AT WATER PIPING. SEE JE-05 FOR CONNECTION. REFER TO JP-01 FOR PIPING LOCATION. PROVIDE 5W/FT HEAT TRACE RATED FOR C1D1 LOCATION. PROVIDE 20A SWITCH CONTROL, IN FD BOX, IN GARAGE; SEE JE-05 FOR LOCATION. HEAT TRACE SHALL BE RATED FOR CLASSIFIED AREA. PROVIDE C1D1 RATED END TERMINATION.
- 9 WALL MOUNT EXHAUST FAN: PROVIDE GREENHECK SCE3-20-617-B3. COORDINATE PENETRATION WITH ARCHITECTURAL & STRUCTURAL.
- 10 PROVIDE HEAT TRACE AT ROOF DRAINS. PROVIDE 10W/FT NOMINAL HEAT TRACE WITH THERMOSTATIC CONTROL. MOUNT J-BOXES TO PARAPET WALLS. COORDINATE LOCATIONS AND CONDUIT ROOF PENETRATIONS WITH ARCHITECTURAL. SEE JE-07 FOR DRAIN HEAT TRACE DETAIL. PROVIDE 20A SWITCH CONTROL, IN FD BOX, IN GARAGE; SEE JE-05 FOR LOCATION. HEAT TRACE SHALL BE RATED FOR CLASSIFIED AREA.
- 11 SEE CABLE SCHEDULES FOR EQUIPMENT POWER AND CONTROL CIRCUIT REQUIREMENTS. SEE 1/JE-07 FOR TYPICAL INSTALLATION ELEVATION.
- 12 ROUTE CONDUITS TO AVOID CONFLICT WITH STORM DRAIN. SEE CIVIL DRAWINGS FOR STORM DRAIN ROUTING. CONDUITS TO BE INSTALLED AT 36" BELOW GRADE TO RUN BELOW STORM DRAIN.

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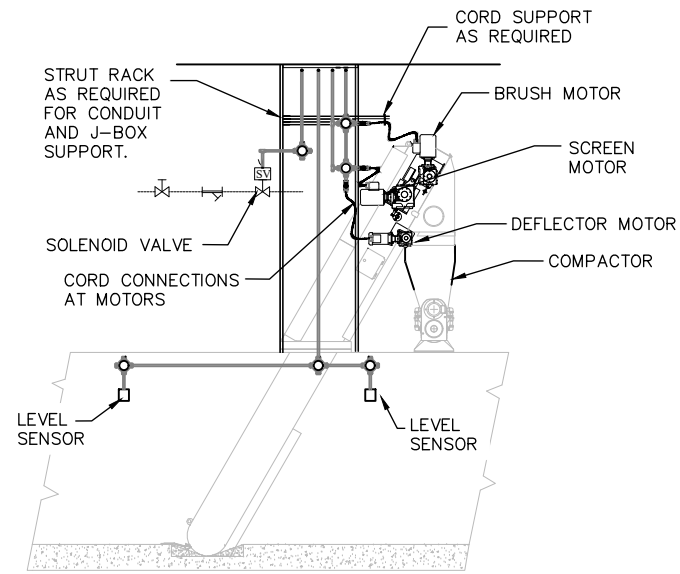
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NEW ADDITION ELECTRICAL PLAN

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JE-06

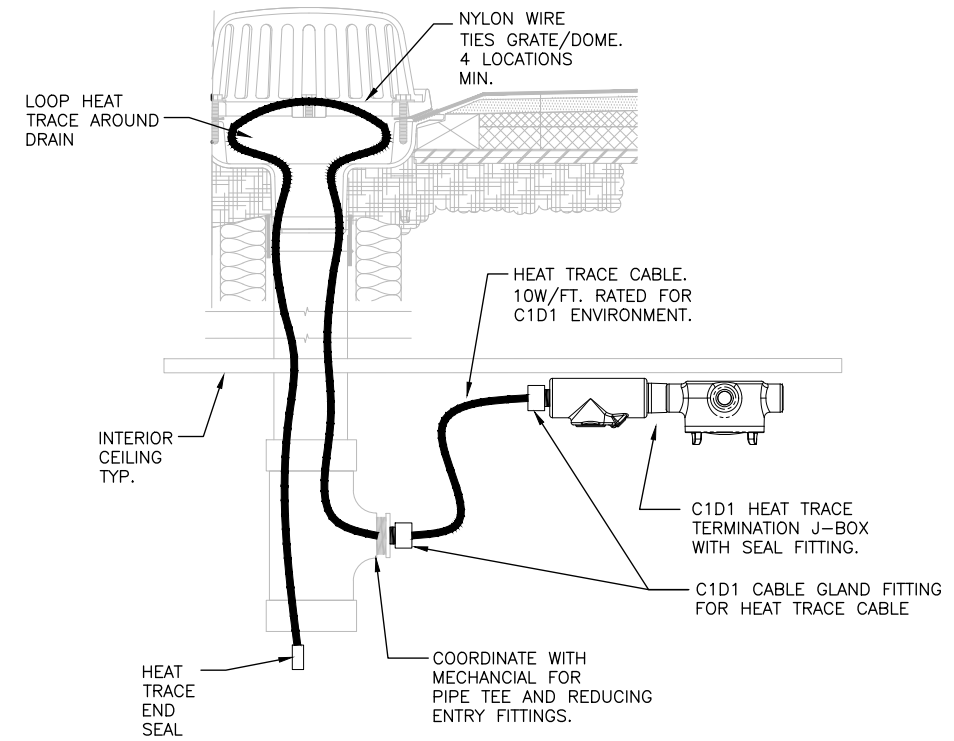
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1 TYPICAL ELECTRICAL AT SCREEN ELEVATION

SCREEN ELEVATION NOTES

1. PROVIDE JUNCTION BOXES, SEAL FITTINGS, AND CORD CONNECTIONS AT SCREEN AND COMPACTOR MOTORS. PROVIDE CONDUIT FOR CONNECTION TO VALVES AND INSTRUMENTS. FIELD LOCATE ALL CONDUITS AND SUPPORTS. CONNECTION REQUIRED ON BOTH SIDES OF SCREEN/COMPACTOR TYPICAL. CONDUIT ELEVATIONS ARE DIAGRAMMATIC, NOT SHOWING ALL CONDUITS AND FITTING REQUIRED FOR A COMPLETE INSTALLATION.
2. CONDUIT SEALS TO BE INSTALLED PER NFPA 70.
3. ALL CONDUITS ARE TO BE INSTALLED SURFACE MOUNTED ON CEILING AND WALLS. SUPPORT VERTICAL CONDUIT DROPS TO SCREENS AND COMPACTORS WITH FLOOR TO CEILING DOUBLE-STRUT RACK. COORDINATE LOCATION OF RACKS WITH OTHER DISCIPLINES AND EQUIPMENT ACCESS.
4. SEE PROCESS DRAWINGS FOR ADDITIONAL EQUIPMENT ELEVATIONS.



C1D1=CLASS 1 DIVISION 1

2 HEAT TRACE AT ROOF DRAINING TYPICAL DETAIL

REV	DATE	DESCRIPTION	BY



DOWL
 WWW.DOWL.COM
 5368 Commercial Boulevard
 Juneau, Alaska 99801
 907-790-3533

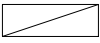



CBJ HEADWORKS IMPROVEMENTS
 CONTRACT No. BE17-033
**JUNEAU DOUGLAS ELECTRICAL
 EQUIPMENT ELEVATIONS**

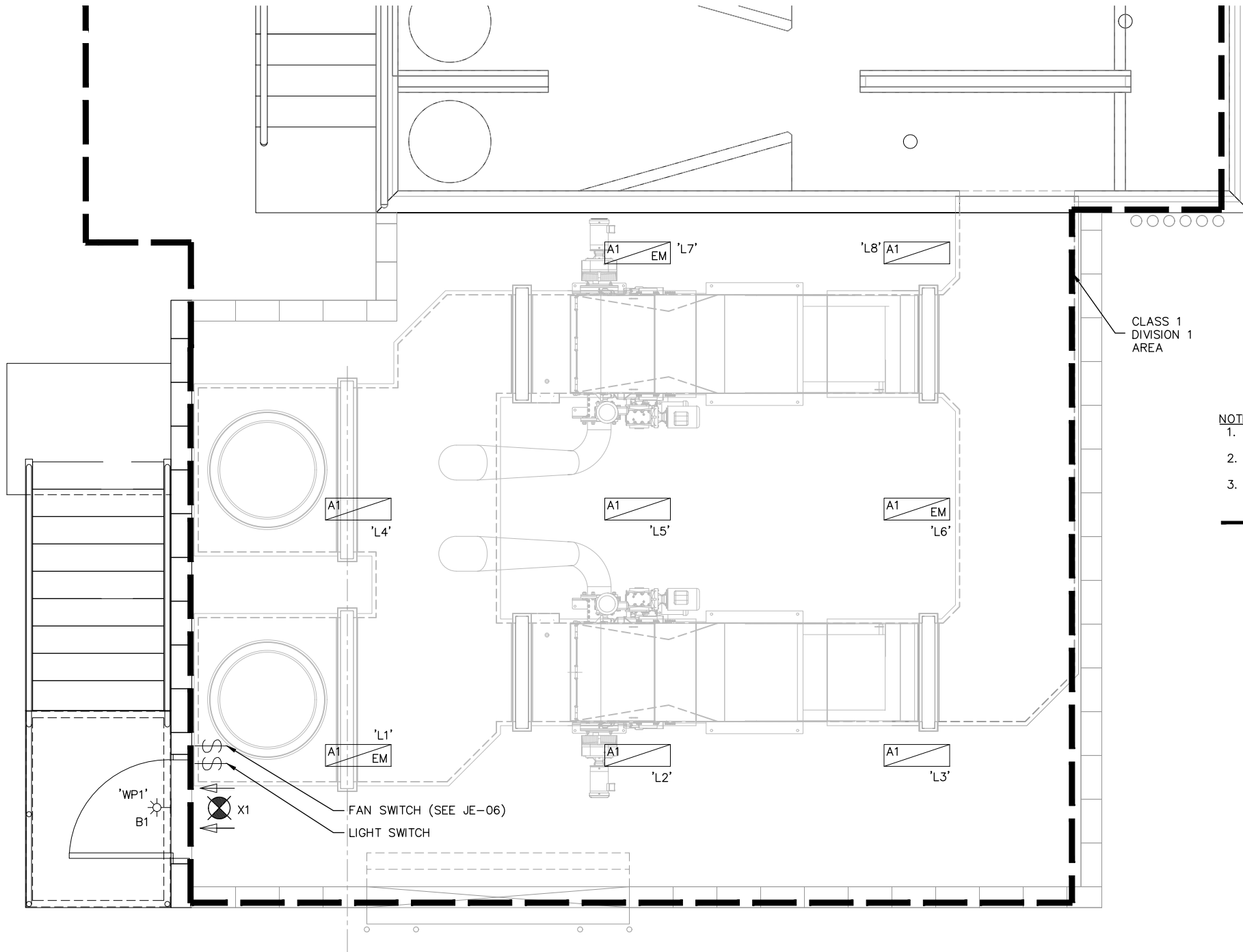
PROJECT 4029.21157.01
 DATE 10/24/2016

AS-BUILT
 JTS - 5/30/19

SHEET 60 OF 61
 JE-07

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LIGHTING SCHEDULE					
SYMBOL	TYPE	UNIT	EST. QTY.	TYPE/DESCRIPTION	MFGR. / NO.
	A1	EA	6	LED LINEAR 3600 LUMENS 33W SUSPENDED MOUNT RATED CLASS 1 DIVISION 1 (L1-L8)	AZZ/RIGALITE XML04LD2U-RIG (EM) PROVIDE EMERGENCY TYPE WHERE INDICATED BY 'EM'
	B1	EA	1	LED WALLPACK 2400 LUMENS, FULL CUTOFF WITH PHOTO SWITCH AND COLD WEATHER EMERGENCY BATTERY. (WP1)	COOPER LUMARK LDWPFC2A120V PE EMLED-CD
	X1	EA	1	LED EXIT SIGN WITH EM BATTERY BACKUP CLASS 1 DIVISION 1	AZZ-RIGALITE/XPEX-1-R-DT-WP-EM
	SW	EA	1	SINGLE POLE SWITCH CLASS 1 DIVISION 1	APPLETON EFS STYLE, FEED THRU, 3/4" HUBS. FITTING AS REQUIRED.



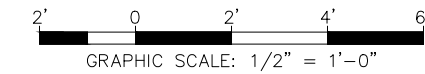
NOTES:

1. SEE CABLE SCHEDULE FOR LIGHTING CIRCUIT.
2. ALL LIGHTING ON SINGLE CIRCUIT.
3. PROVIDE SEAL FITTINGS PER AT LIGHT FIXTURES AND SWITCHES.
3. L1 - L8 ARE FIXTURE REFERENCE LABELS

--- CLASS 1 DIVISION 1 BOUNDARY



AS-BUILT
JTS - 5/30/19



REV	DATE	DESCRIPTION

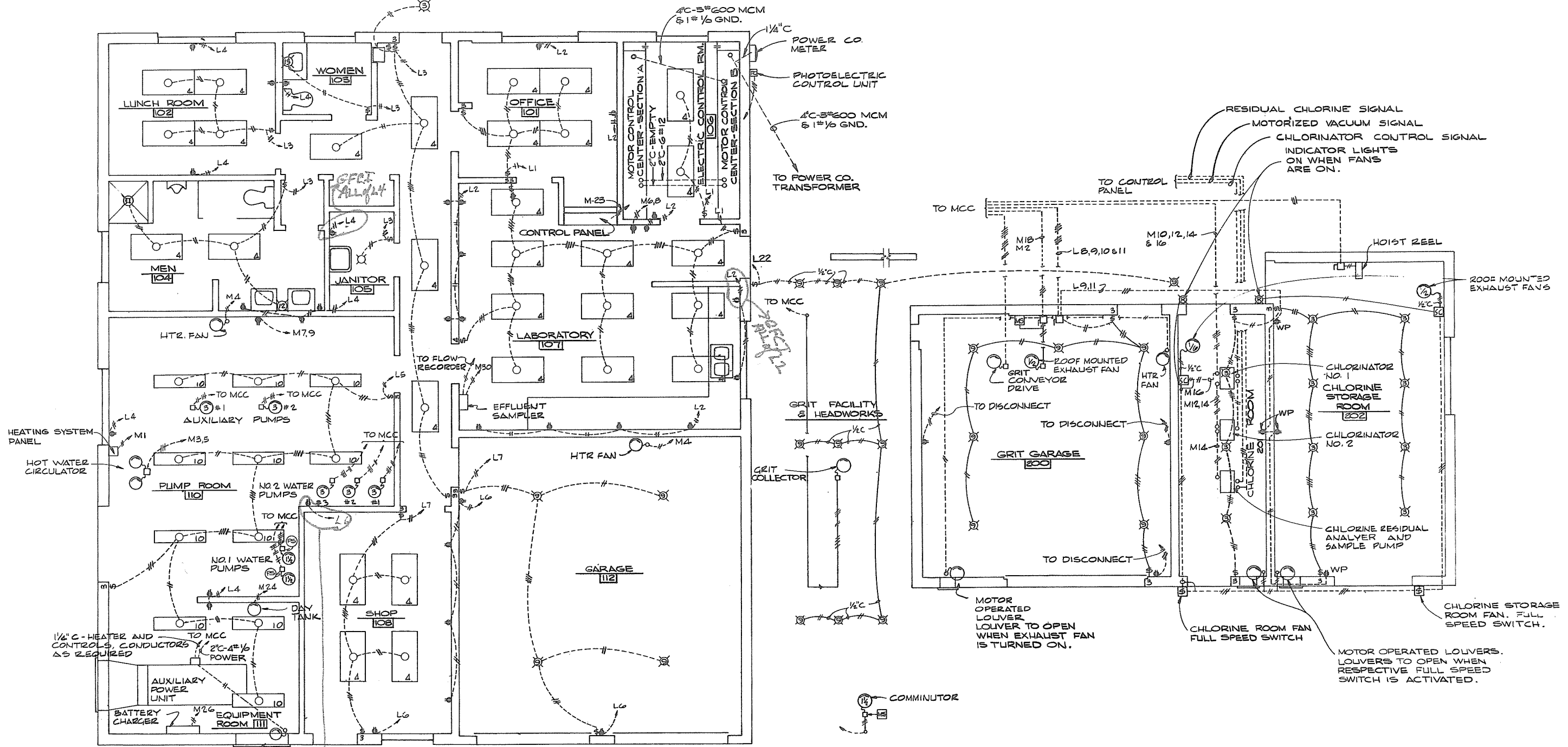


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CBJ HEADWORKS IMPROVEMENTS
CONTRACT No. BE17-033
JUNEAU DOUGLAS ELECTRICAL
NEW ADDITION LIGHTING PLAN

PROJECT 4029.21157.01
DATE 10/24/2016

SHEET 61 OF 61
JE-08



GFCI only on 1 recept.

NOTE: SEE SHEET 42 FOR LEGEND



DES. GRC	APP. <i>J. Hamilton</i>	REVISIONS
DWN. <i>W.F.</i>	DIVISION MANAGER	
CHK. W.F.	DATE JAN. 1973	

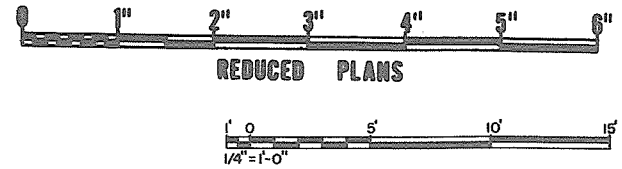
CITY AND BOROUGH OF JUNEAU, ALASKA ANCHORAGE

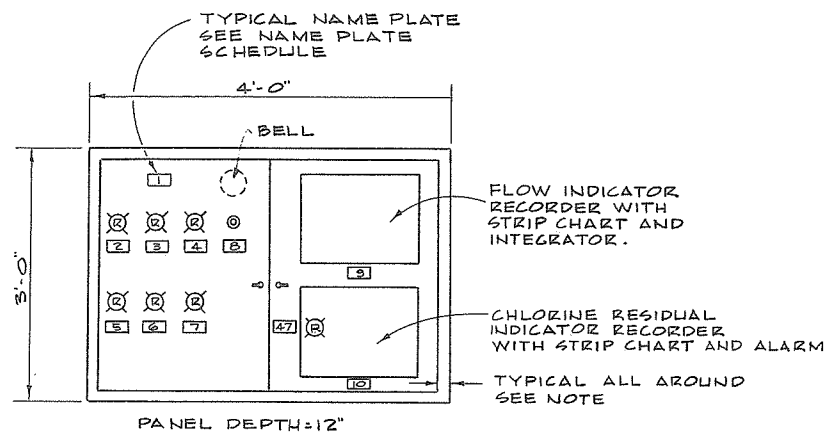
Clair A. Hill & Associates CONSULTING ENGINEERS, ALASKA

JUNEAU - DOUGLAS SEWERAGE PROJECT

SCHEDULE Y WASTEWATER TREATMENT PLANT CONTROL BUILDING COMPLEX ELECTRICAL

DWG. NO. 40 JOB NO. J40.05





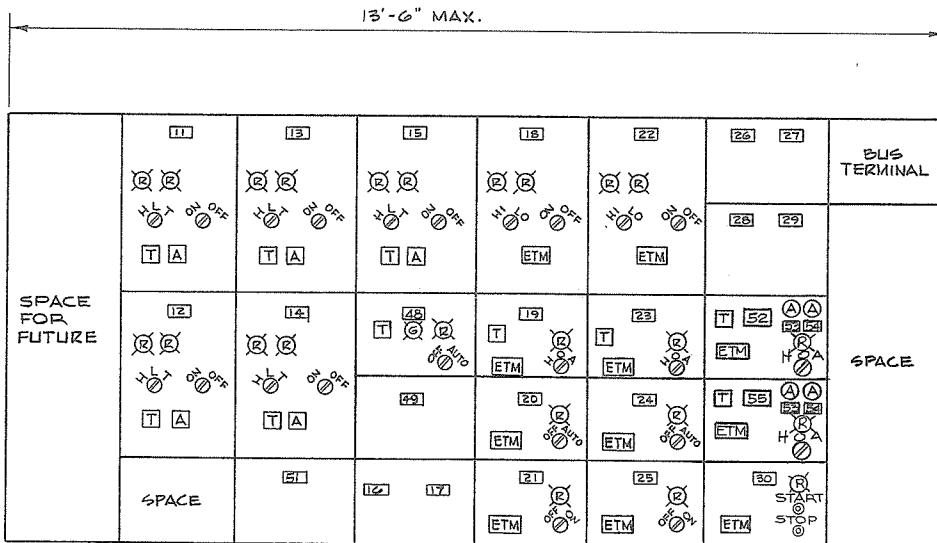
CONTROL PANEL IN LAB

N.T.S.

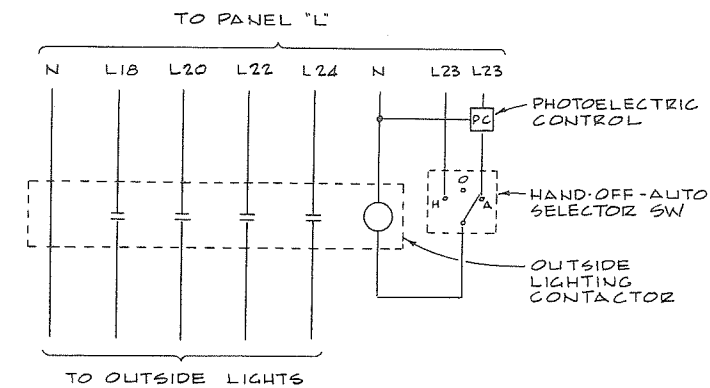
NOTE: PANEL TO BE MOUNTED FLUSH WITH FINISHED WALL AND WILL BE BORDERED WITH WOODEN TRIM SEE 3021

NAMEPLATE SCHEDULE

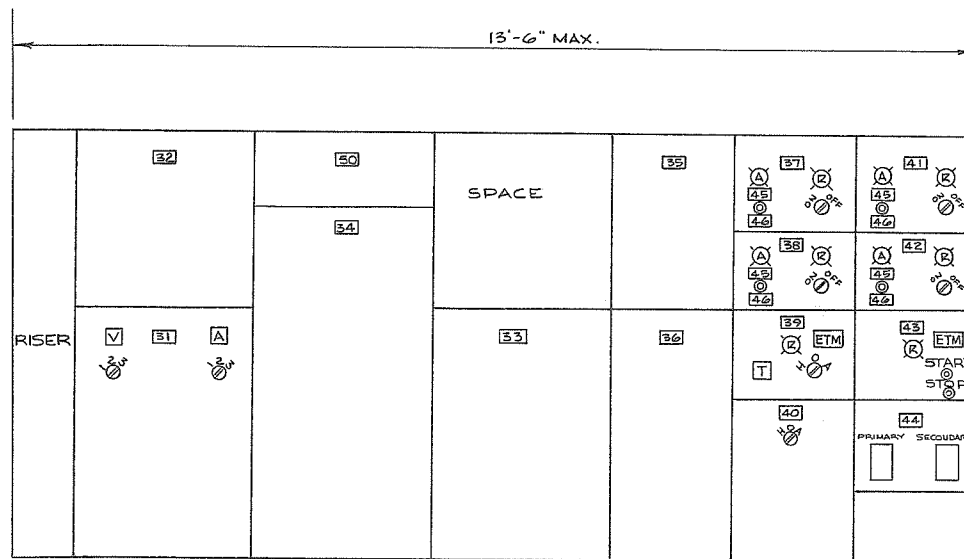
- | | |
|------------------------------------------------------|---------------------------------------------|
| 1. ALARMS | 31. MAIN CIRCUIT BREAKER |
| 2. CLARIFIER NO. 1 | 32. POWER CO. METERING TRANSFORMERS |
| 3. CLARIFIER NO. 2 | 33. 30 KVA TRANSFORMER |
| 4. NORMAL POWER FAILURE | 34. AUTOMATIC TRANSFER SWITCH |
| 5. GRIT COLLECTOR | 35. LIGHTING PANEL, L |
| 6. GRIT CONVEYOR | 36. LIGHTING PANEL, M |
| 7. HEATER FAILURE | 37. CLARIFIER NO. 1 |
| 8. SILENCER | 38. GRIT COLLECTOR |
| 9. PLANT FLOW RATE | 39. AUXILIARY PUMP NO. 1 |
| 10. CHLORINE RESIDUAL | 40. OUTSIDE LIGHTING CONTACTOR |
| 11. AERATOR NO. 1, BASIN NO. 1 | 41. CLARIFIER NO. 2 |
| 12. AERATOR NO. 3, BASIN NO. 2 | 42. GRIT CONVEYOR |
| 13. AERATOR NO. 2, BASIN NO. 1 | 43. AUXILIARY PUMP NO. 2 |
| 14. AERATOR NO. 4, BASIN NO. 2 | 44. LIGHTING TRANSFORMER CIRCUIT BREAKER |
| 15. AERATOR NO. 5, DIGESTER | 45. TORQUE CUTOUT |
| 16. COMMUNOTOR CIRCUIT BREAKER | 46. CUTOUT RESET |
| 17. HOIST CIRCUIT BREAKER | 47. CHLORINE RESIDUAL ALARM |
| 18. RETURN SLUDGE PUMP NO. 1 | 48. DIGESTER DECANT VALVE CONTROL |
| 19. WASTE SLUDGE PUMP NO. 1 | 49. DIGESTER DECANT VALVE CIRCUIT BREAKER |
| 20. NO. 1 WATER PUMP NO. 1 | 50. LIGHTNING ARRESTOR AND SURGE CAPACITORS |
| 21. NO. 2 WATER PUMP NO. 1, CHLORINATOR NO. 1 SUPPLY | 51. SEPTAGE COMMUNOTOR CIRCUIT BREAKER |
| 22. RETURN SLUDGE PUMP NO. 2 | 52. SEPTAGE PUMP |
| 23. WASTE SLUDGE PUMP NO. 2 | 53. MOTOR WINDING ALARM LIGHT |
| 24. NO. WATER PUMP NO. 2 | 54. MOISTURE IN MOTOR ALARM LIGHT |
| 25. NO. 2 WATER PUMP NO. 2, CHLORINATOR NO. 2 SUPPLY | 55. SEPTAGE PUMP |
| 26. AERATION BASIN NO. 1 LARGE EXHAUST FAN | |
| 27. AERATION BASIN NO. 2 LARGE EXHAUST FAN | |
| 28. DIGESTER LARGE EXHAUST FAN | |
| 29. CLARIFIER LARGE EXHAUST FAN | |
| 30. NO. 2 WATER PUMP NO. 3, CLARIFIER SPRAY SUPPLY | |



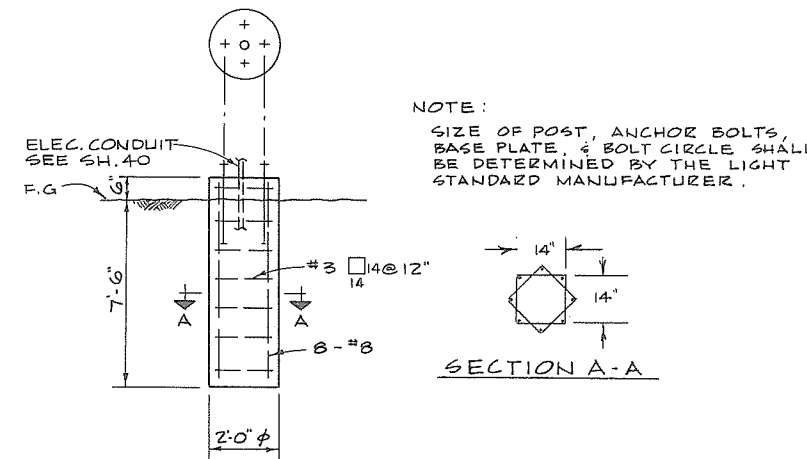
SECTION A MOTOR CONTROL CENTER - OFFICE WALL



LIGHTING CONTACTOR CIRCUIT

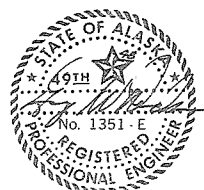


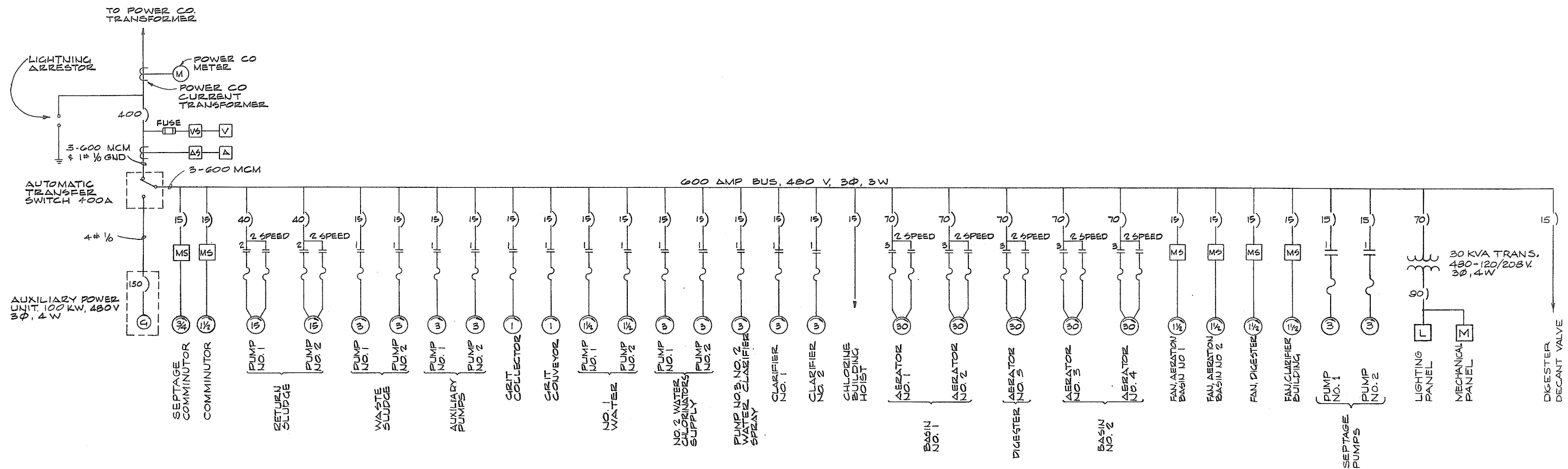
SECTION B MOTOR CONTROL CENTER - EXTERIOR WALL



TYPICAL LIGHT POLE FOOTING
N.T.S.

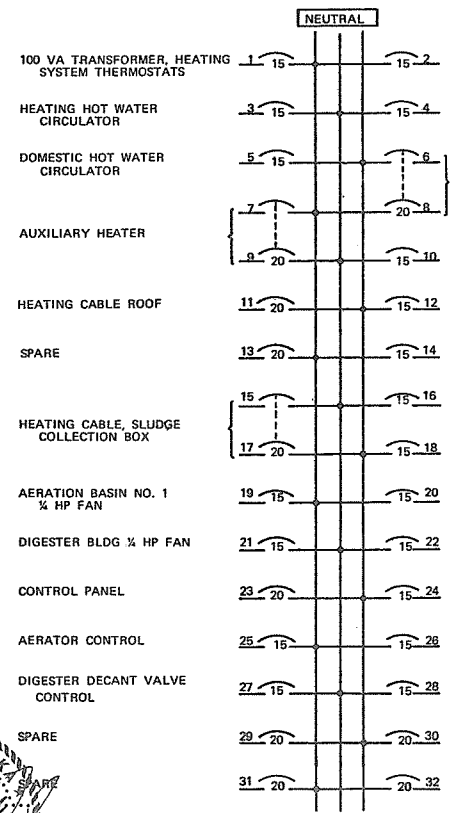
NOTE: SEE SHEET 42 FOR LEGEND



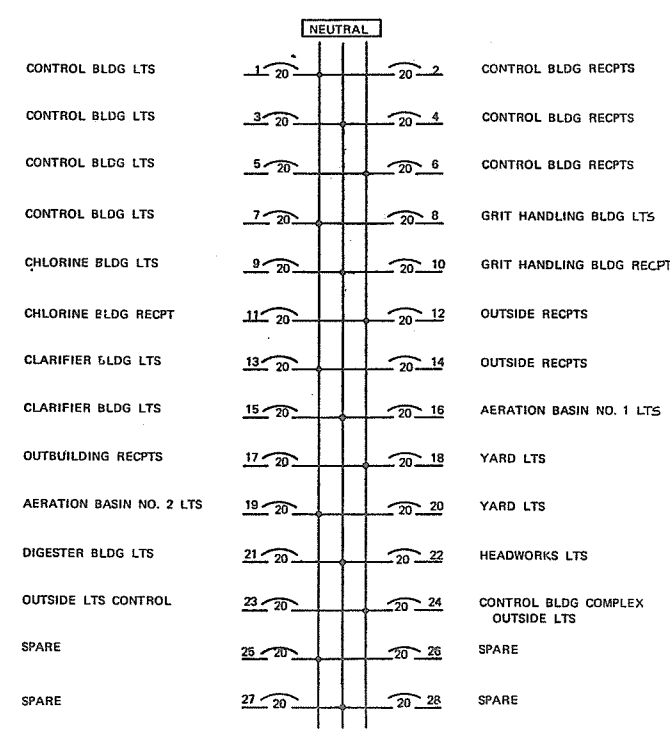


SINGLE LINE DIAGRAM

LEGEND



MECHANICAL PANEL "M"



LIGHTING PANEL "L"

- (12) LIGHTING FIXTURE, WATEROUS CO. FLUORESCENT, W-1200 MODEL C - 72" x 24".
- (15) LIGHTING FIXTURE, WATEROUS CO. FLUORESCENT WATEROUS CO. FLUORESCENT, W-1200 MODEL C - 30" x 24".
- (R) PHOTOELECTRIC CONTROL UNIT, TORK MODEL 2100, MOUNT UNDER EYE ON RECESSED BOX.
- (S) SWITCH SPST
- (3-WAY) SWITCH, 3-WAY
- (4-WAY) SWITCH, 4-WAY
- (WP) DUPLEX CONVENIENCE OUTLET - WP INDICATES WEATHERPROOF XP INDICATES EXPLOSION PROOF
- (208-V) 208-VOLT OUTLET
- (HP) MOTOR, HORSEPOWER SHOWN
- (PS) PRESSURE SWITCH
- (DISC) DISCONNECT SWITCH, NON-FUSED
- (MS) MANUALLY OPERATED MOTOR CONTROLLER
- (CB) CIRCUIT BREAKER, TRIP RATING SHOWN
- (OR) OVERLOAD RELAY
- (R) INDICATING LIGHT, R RED, A AMBER
- (A) AMMETER
- (T) TIMER
- (ETM) ELAPSED TIME METER
- (SS) SELECTOR SWITCH
- (T) THERMOSTAT
- (CONDUIT) CONDUIT EXPOSED, 3/4" UNLESS OTHERWISE NOTED
- (CONDUIT SEALING) CONDUIT SEALING FITTING
- (1) LUMINAIRE, TWO 250-WATT MERCURY LAMPS, MC GRAW EDISON STYLAIRE TWIN 250, WITH 20 FOOT WHL404-190-08 ALUMINUM POLE.
- (2) LUMINAIRE, 250-WATT MERCURY LAMP, MC GRAW EDISON STYLAIRE 250 WITH 20 FOOT WHL404-190-08 ALUMINUM POLE.
- (3) LIGHTING FIXTURE INCANDESCENT, 150-WATT VAPORTIGHT APPLETON VA 1550STG PENDANT MOUNTED 8 FEET ABOVE FLOOR OR MAX. WATER SURFACE.
- (4) LIGHTING FIXTURE FLUORESCENT, SMOOT HOLMAN CAT 221-24R-FA, ACRYLIC LENSE, 2-40 WATT LAMPS, RECESSED.
- (5) LIGHTING FIXTURE, INCANDESCENT, SHALDA 101-5, 150-WATT PAR38 FLOOD, WALL MOUNTED ON RECESSED BOX, HEIGHT AS SHOWN.
- (6) LIGHTING FIXTURE, INCANDESCENT, WALL MOUNTING 75 WATT, STARLIGHT SL-215.
- (7) LIGHTING FIXTURE, INCANDESCENT, 300-WATT VAPORTIGHT APPLETON VSA 5050 ANG, MOUNT ABOVE DOOR HEIGHT
- (8) LIGHTING FIXTURE, INCANDESCENT, 150-WATT VAPORTIGHT, APPLETON VC-1550STG
- (9) LIGHTING FIXTURE, INCANDESCENT, 150-WATT, APPLETON G-73214.
- (10) LIGHTING FIXTURE, FLUORESCENT, SMOOT HOLMAN, CAT GP-24R-FA5, PENDANT MOUNTED.
- (11) LIGHTING FIXTURE, WATERPROOF INCANDESCENT SHOWER LIGHT, 60 W, SEARS 34-K-3365.
- (---) CONDUIT CONCEALED, 3/4" UNLESS OTHERWISE INDICATED. (HASH MARKS INDICATE NUMBER OF NUMBER 12 CONDUCTORS)
- (---) M2 HOME RUN TO EQUIPMENT INDICATED
- (V) VOLTMETER
- (AS) AMMETER SWITCH
- (VS) VOLTMETER SWITCH
- (P) PUSH BUTTON
- (H) HEATING CABLE, ROOF DRAIN AND SCUPPER

