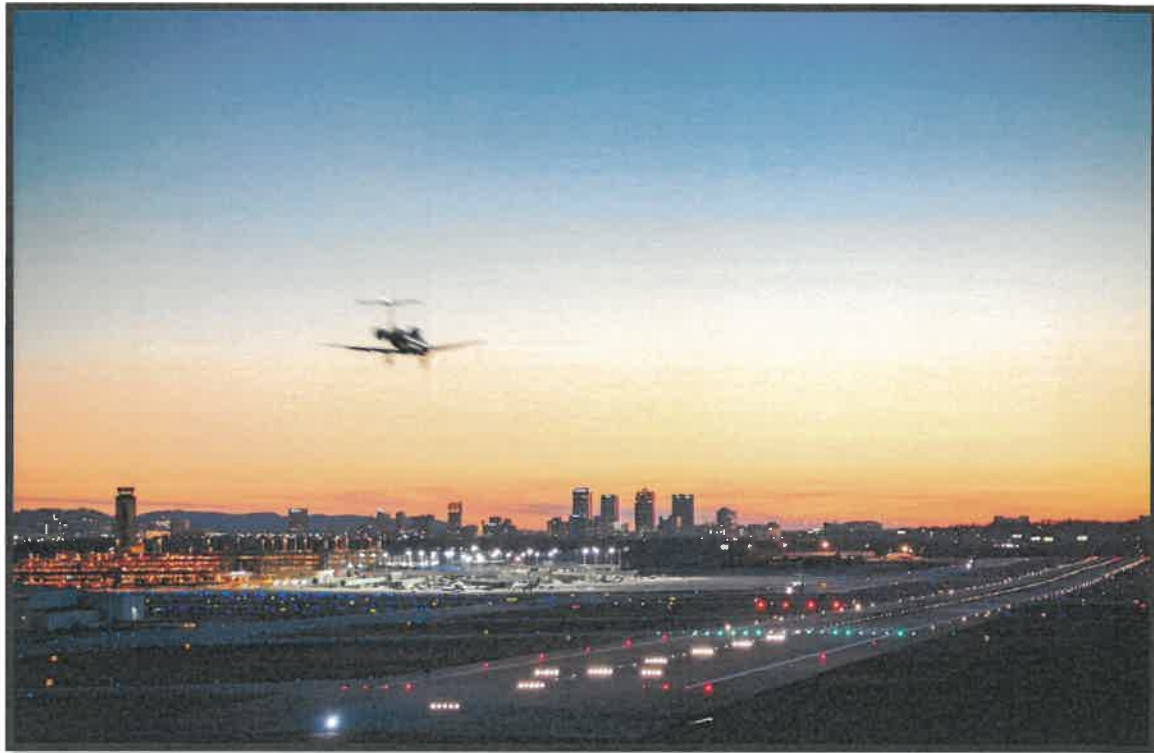


Request for Proposal (RFP) 900 Kw Generator



**Birmingham Airport Authority
April 2024**

I. Introduction

A. Project Description

This document serves as the Birmingham Airport Authority's ("BAA") request for proposal ("RFP") for a qualified company ("Contractor") to supply and install a 900 Kw Generator for storm water pump station.

The goal of this procurement effort is to enter into an Agreement with the best-valued Contractor to supply and install a 900 Kw Generator at the Pump Station located at the Birmingham-Shuttlesworth International Airport ("BHM Airport").

B. Proposed Scope of Work

- Supply and install a 900 Kw Natural Gas or a Diesel Generator for storm water pump station. We will decide which.
- See Exhibit 1 for all of the specifications.
- Provide pricing for a Diesel Generator and a separate quote for a Natural Gas Generator.
- Separate Pricing for installation of a Gas Generator and separate pricing for installation of a Diesel Generator.
- Testing of existing electrical wiring.
- Reconnection of electrical to existing transfer switch.
- Reconnect controls to existing transfer switch.
- Installation of new gas service line (per Spire).
- Gas lines to generator.
- Pressure test for new meter set.
- New Battery. Startup and test.
- Gas permit and inspection.
- Electrical permit and inspection.
- Building permit and inspection.
- Remove existing diesel generator and haul away.

C. General Terms of Agreement

- i. **Term of Agreement:** The term of any agreement resulting from this RFP (the "Agreement") shall be for one (1) year.
- ii. **Compliance with Laws:** Contractor shall obtain and maintain all licenses, permits, and liability insurance, and maintain compliance with any other federal, state, or local requirements during the term of the Agreement with BAA and in submitting a proposal in response to this RFP (the "Proposal").

- iii. **Default:** Any Agreement made between BAA and Contractor can be cancelled by BAA in whole or in part via written notice, upon Contractor's non-performance or violation of Agreement terms. The contractor will be given fifteen (15) days to rectify the non-performance or violation. An award may be made to the lowest quoting Contractor for the services specified. Failure to rectify non-performance or violation will result in termination of the Agreement. Contractor shall be liable for costs to BAA in excess of the defaulted Agreement prices. Contractor shall continue performance under the Agreement to the extent any part is not terminated for uncured default.
- iv. **Cure and Cover Clause:** If a Contractor fails, or BAA concludes that there is a reasonable likelihood that Contractor will not be able to timely perform its obligations under the Agreement, BAA may (in addition to any other contractual, legal, or equitable remedies) proceed to take any of the following actions after fifteen (15) days' written notice to Contractor: (a) withhold any monies then or next due to Contractor; or (b) terminate the Agreement and obtain the marketing services (or equivalent) or portion thereof (or equivalent) from a third party, pay the third party for the same, and withhold the amount so paid from any money then or thereafter due to Contractor and hold Contractor liable for any amounts paid to the third party (or parties) to the extent that withholding payments to Contractor does not cover BAA's cost of cover.
- v. **Termination of Agreement:** In addition to any other rights and remedies allowed by law, BAA may terminate the Agreement at any time for any reason, or no reason, with or without cause, without penalty or expense to BAA of any kind whatsoever, by giving fifteen (15) days' written notice to Contractor of such termination and specifying the effective date of termination. Termination of the Agreement as provided shall release BAA from any fees to be paid to Contractor for services performed after the date of termination. BAA shall pay Contractor any unpaid fees earned for services performed in accordance with the Agreement prior to the effective date of termination.
- vi. **Add/Delete Items:** During the term of the Agreement, items and/or services may be added to and/or deleted from the Agreement upon a written agreement between Contractor and BAA.
- vii. **No Exclusivity:** The Agreement will not give Contractor any exclusive right to perform marketing services for BAA. BAA reserves the right to obtain outside estimates for marketing services provided under the Agreement when it is not in the best interest of BAA.
- viii. **Indemnification:** Contractor will undertake and agree, in the Agreement, to indemnify and hold harmless BAA and any and all of its Board Members, officers, and employees from and against all suits, causes of action, claims, losses, demands, and reasonable expenses, including but not limited to, reasonable attorney's fees and reasonable costs of litigation, damage(s), or liability, including but not limited to death or injury or for damage to or destruction of any property, arising by reason of the performance of the Agreement to the extent caused by the negligent performance of services under the Agreement on the part of Contractor, or any of Contractor's subcontractors, employees, or anyone for whom Contractor is responsible under the Agreement. THERE IS NO EXPECTATION OF ANY INDEMNIFICATION BEING PROVIDED TO CONTRACTOR BY BAA. Contractor is hereby advised of the statutory immunity from tort claims applicable to BAA and its directors, which is contained in Section 4-3-50 and 4-3-47(2) of the Code of Alabama, 1975.

- ix. **Bonds:** If the Contract Sum is \$50,000.00 or more, the Contractor shall, at the Contractor's expense, furnish to the Owner a Performance Bond and a Payment Bond, each in a penal sum equal to 100% of the Contract Sum. Each bond shall be in form and substance as required by *Alabama Code § 39-1-1 (1975)*, shall be executed by a surety company ("Surety") acceptable to the Owner and duly authorized and qualified to make such bonds in the State of Alabama in the required amounts, shall be countersigned by an authorized, Alabama resident agent of the Surety who is qualified to execute such instruments, and shall have attached thereto a power of attorney of the signing official. All Contract change orders involving an increase in the Contract Sum will require consent of Surety by endorsement of the change order form. The Surety waives notification of any Contract change orders involving only extension of the Contract Time. The provisions of this Section are not applicable to this Contract if the Contract Sum is less than \$50,000.
- x. **Nondiscrimination:** The Nondiscrimination Requirements set forth in Appendix A attached hereto will be a part of any Agreement and this RFP.

D. General Terms of the RFP

- i. **Terms and Conditions:** Contractor agrees to abide by all the terms and conditions contained in this RFP. Any exceptions to the requirements of our terms and conditions for this RFP shall be noted in writing, with detailed explanation, and included in the Proposal. Contractor acknowledges that taking exceptions to this RFP may cause the Proposal to be rejected.
- ii. **Discussions and Questions:** All questions must be submitted in writing and directed to BAA's VP of Procurement at eseoane@flybhm.com in order to be considered. The contractor shall not attempt to discuss any aspects of this RFP with any other party except for the recipient at the email address described in this RFP. No verbal agreements will be considered during the proposal process. BAA reserves the right to reject the Proposal of any Contractor violating this provision.
- iii. **Completeness:** All requested information and required forms must be completed, signed, and submitted with the Proposal to constitute a proper Proposal. The entire package must be complete with all required forms, signatures, and information. Failure to complete or comply with any part of the specifications or requirements in this RFP may constitute a basis of rejection. It is within the right of BAA to reject any or all Proposals resulting from this RFP.
- iv. **Errors:** Contractor or its authorized representatives are expected to fully inform themselves as to the conditions, requirements, and specifications before submitting Proposals. Contractor is cautioned not to obliterate, erase, or strike-over any printed material as set forth in this RFP. In quoting prices, wherever Contractor has made an error and has corrected, all such corrections should be initialed by the person signing the Proposal. If errors occur in the extension of prices in the Proposal, the unit prices shall govern. Failure to comply with this provision may result in rejection of Contractor's Proposal. All documents submitted must be legible.
- xi. **Changes/Modifications:** No changes or modifications shall be made by the Contractor to any BAA forms without the approval of BAA. If changes or modifications are made without the approval of BAA, the Contractor's Proposal may be rejected.

- xii. **Reimbursement:** BAA will not reimburse Contractor for any costs associated with the preparation and submission of any Proposal or for any travel and/or per diem costs incurred.
- xiii. **Submitted Material:** All requests, responses, inquiries, or correspondence relating to or referencing this RFP, submitted by Contractor, shall become the property of BAA when received. Once an award is made, all excess copies of the Contractor's Proposal may be destroyed at Contractor's request.
- xiv. **Disclaimer:** This is a Request for Proposal. This is not an offer or contract. The submission of a Proposal in response to this RFP does not impose any legal obligations upon BAA, nor does it create any contractual or quasi-contractual relationship between BAA and any Contractor. BAA reserves the right to reject or disregard any or all Proposals, to negotiate with any or all Contractors, and/or to enter an Agreement or Agreements with any Contractor or Contractors for any or all of the services described herein. BAA is not obligated to respond to any statement or Proposal. This RFP is subject to errors, omissions, modifications, withdrawal, or cancellation without notice.
- xv. **Reserved Rights:** BAA reserves the right (a) to reject any or all Proposals or any part thereof; (b) to waive any irregularities and/or technicalities on the Proposals; (c) to accept the Proposal that is in the best interest of BAA; (d) to obtain clarification or additional information for any Proposal; (e) to reject any Contractor who has previously failed to perform properly or complete on time any services for BAA; and (f) to reject any Contractor whom investigation shows is not in a position to perform the services as specified in this RFP.

II. Special Conditions

- i. **Minority Business:** BAA encourages all Minority Business Enterprises (MBE), and Woman Owned Enterprises (WBE) to participate in responding to this RFP. BAA has an MBE/WBE participation goal for the scope of work associated with this RFP of thirteen percent (13%) (the "MBE/WBE" Participation Goal").
- ii. **Changes and Alterations:** BAA reserves the right to make reasonable changes to this RFP as may be necessary due to changing conditions.
- iii. **Basis of Award:** The basis of evaluation will be the best value considering price and Contractor's ability to meet or exceed BAA's specifications and requirements. The Agreement is subject to be awarded to the most responsive and responsible Contractor whose Proposal is evaluated to be the most advantageous to BAA considering price and other factors.
- iv. **Insurance:**
 - A. The Contractor, for the protection and benefit of the Owner and any and all of its partners, officers, directors, shareholders, beneficiaries, agents and employees (collectively, the "Indemnitees") and in satisfaction of the Contractor's obligations, shall specifically procure, pay for, and maintain, in full force and effect until final payment (unless otherwise designated), at no expense to the Owner, policies of insurance to be written by an insurer approved by the Owner, who is lawfully authorized to do business in the State in which the Project is located and which shall, as a minimum, afford the types and limits of coverage set forth in **Exhibit B** hereto. All insurance policies shall be written

in a company, or companies lawfully authorized to do business in Alabama and are required to have minimum A.M. Best financial rating of A minus, 8 (A-, VIII). All such insurance policies shall provide that coverage is primary and non-contributory, include a waiver of subrogation and provide the Owner with at least thirty (30) days prior written notice of any cancellations or modification thereof. The Owner shall be named as an additional insured on all policies except Workers' Compensation and the Professional Liability/E&O policies. The additional insureds provision shall read: Birmingham Airport Authority, City of Birmingham, Alabama and their respective directors, council members, agents and employees.

B. The Contractor shall provide the Owner with copies of the insurance policies or certificates evidencing that the required coverages are in place. Certificates of Insurance shall be filed with the Owner prior to commencement of the Work on a Certificate of Insurance form, or Certificates, policies, or endorsements acceptable to the Owner. If such insurance coverages are not issued on an occurrence basis, such insurance coverages are required to remain in force after the termination or expiration of this Contract. If such insurance coverages are required to remain in force after the expiration or termination of this Contract, an additional certificate evidencing continuation of such coverage shall be submitted prior to final payment to the Contractor. If the Contractor's coverage is written on a claims-made basis, the Contractor shall also provide tail coverage to include claims made after the completion of the Work for the required statute of repose. In the event the Contractor fails to furnish the Owner with evidence of insurance and maintain the insurance as required, the Owner upon ten (10) days prior written notice to comply, may, but shall not be required to, procure such insurance at the cost and expense of the Contractor, and the Contractor agrees to promptly reimburse the Owner for the cost thereof. Payment shall be made within thirty (30) days of invoice date. If the Contractor has any subcontractor performing any of the Work, the subcontractor is subject to the same insurance requirements outlined in this Exhibit A unless waived or reduced by the Owner. The Contractor is advised of the statutory immunity from tort claims applicable to the Owner and its directors, which is contained in § 4-3-50 and § 4-3-47(2) of the Code of Alabama, 1975.

III. Submittal Requirements

A. Selection Process and Criteria

This is a best value procurement process. This method is defined as "a procurement process where price and other key factors can be considered in the evaluation and selection process of a Contractor for the requested services."

BAA's selection committee will review all responsive Proposals based on the criteria below and create a ranking of Contractors.

To be deemed responsive, Contractor must provide appropriate detail to demonstrate satisfaction of each criterion and compliance with the performance provisions outlined in this RFP. Contractor's Proposal will be the primary source of information used in the evaluation process. Proposals must contain information specifically related to the requested services. Failure to submit any information requested may result in the

elimination of the Proposal from further evaluation and consideration. The evaluation will be based on the following criteria:

- i. Contractor's capability to perform all aspects of the scope of work.
- ii. Contractor's proposed approach to the services at BHM Airport.
- iii. Contractor's recent experience in performing similar services.
- iv. Contractor's commitment to the MBE/WBE Participation Goal.
- v. Contractor's proposed Payment Provision.

Short-listed Contractors may be interviewed. However, BAA reserves the right to select the highest ranked Contractor based solely upon the Proposal if the Proposal has the requested information. Once BAA determines the highest ranked Contractor, BAA will engage in negotiations with Contractor for an Agreement for the services.

B. Project Proposal

Please submit one (1) electronic copy of your Proposal to the email address below:

Contact: Ed A. Seoane, Vice President of Purchasing

E-mail: eseoane@flybhm.com

All questions associated with this RFP must be submitted in writing via e-mail to Ed Seoane, Vice President of Purchasing, at eseoane@flybirmingham.com by the deadline identified for questions/clarifications (see timeline).

Proposals shall remain valid for one hundred eighty (180) days from the submission deadline. By submitting a Proposal, the Contractor agrees that its Proposal is valid and will not be withdrawn for one hundred eighty (180) days from the submission deadline.

C. Project Proposal Format

Contractor's Proposal shall be no longer than five (5) pages and must include the following sections:

- i. **Contractor Overview and Capability to Perform All Aspects of the Scope of Work:** Detail the overall structure of Contractor and any unique operating characteristics that may enhance Contractor's ability to provide the requested services. This should include but is not limited to: relevant services provided by Contractor, office locations, and total number of employees providing relevant services.
- ii. **Recent Contractor Experience in Performing Similar Services:** Discuss relevant services completed at other comparable facilities within the past five (5) years. This should include, but is not limited to: location, start and completion date, description of services provided, outcome of services provided, quality of services provided, and applicability to BAA's proposed scope of work. Identify Contractor's role as either a primary contractor or subcontractor and Contractor's specific contribution to the

task. A point of contact for the project’s owner must also be included. BAA may contact such references, as necessary.

- iii. **Proposed Scope of Work and Approach to Performing the Services:** Discuss the scope of work and how Contractor will provide the desired services. Detail how Contractor will perform quality control throughout the Agreement term. Identify Contractor’s plan for communication with BAA throughout the Agreement term.
- iv. **MBE/WBE Participation:** Provide detailed breakdown of any MBE/WBE firms that will be utilized during the term of the Agreement.
- v. **Cost Proposal:** Provide the proposed cost for the 900 Kw Generator including shipping and a separate Cost for the Installation. Specified lead time for delivery and lead time for the installation.

D. RFP Timeline

All deadlines are by 2:00 P.M. Central Time on each respective date.

RFP Posted	April 16, 2024
Prebid Meeting	April 25, 2024
Deadline for Proposal Questions/Clarifications	May 2, 2024
Proposal Deadline	May 15, 2024
Contractor Recommendations / Award of Agreement Date	June 2024

There will be a Prebid meeting and a site visit on **April 25, 2024, at 2 PM CST** in Meeting Room A. Meeting Room A is located on the first floor behind the escalators. Please RSVP your attendance to Karen Hazelwood khazelwood@flybhm.com by April 23, 2024.

Quotes are due no later than **2:00 p.m. Central Time on May 15, 2024**, by which time all Quotes shall be recorded. Quotes will not be accepted after this date and time for any reason.

Quotes submitted by facsimile will not be accepted.

APPENDIX A

NONDISCRIMINATION REQUIREMENTS Federal Aviation Administration Required Provisions

A. Civil Rights – General. Contractor agrees to comply with pertinent statutes, Executive Orders and such rules as are promulgated to ensure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance. If Contractor transfers its obligation to another, the transferee is obligated in the same manner as Contractor.

This provision obligates Contractor for the period during which the BAA remains obligated to the Federal Aviation Administration. This provision is in addition to that required by Title VI of the Civil Rights Act of 1964.

B. Civil Rights – Title VI Assurances – Compliance with Nondiscrimination Requirements.

1. **Compliance with Regulations:** Contractor will comply with the Title VI List of Pertinent Nondiscrimination Acts and Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Non-discrimination:** Contractor, with regard to the work performed by it during the Agreement, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. Contractor will not participate directly or indirectly in the discrimination prohibited by the Nondiscrimination Acts and Authorities, including employment practices when the Agreement covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.
3. **Solicitations for Subcontracts, including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding or negotiation made by Contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by Contractor of Contractor's obligations under this Agreement and the Nondiscrimination Acts and Authorities on the grounds of race, color, or national origin.
4. **Information and Reports:** Contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the BAA or the Federal Aviation Administration to be pertinent to ascertain compliance with such Nondiscrimination Acts and Authorities and instructions. Where any information required of Contractor is in the exclusive possession of another who fails or refuses to furnish the information, Contractor will so certify to the BAA or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of Contractor's noncompliance with the non-discrimination provisions of this contract, the BAA will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:
 - (a) Withholding payments to Contractor under the Agreement until Contractor complies; and/or
 - (b) Cancelling, terminating or suspending the Agreement, in whole or in part.
6. **Incorporation of Provisions:** Contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations, and directives issued pursuant thereto. Contractor will take action with respect to any subcontract or procurement as the BAA or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if Contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, BAA may request Contractor to enter into any litigation to protect the interests of the BAA. In addition, Contractor

may request the United States to enter into the litigation to protect the interests of the United States.

7. **Civil Rights – Title VI Clauses for Use/Access to Real Property.** Contractor for itself, its heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree that (1) no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of the Airport, (2) that in the construction of any improvements on, over, or under such land, and the furnishing of services thereon, no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination, (3) that Contractor will use the premises in compliance with all other requirements imposed by or pursuant to the List of Pertinent Nondiscrimination Acts And Authorities in Paragraph C below.

In the event of breach of any of the above nondiscrimination covenants, the BAA will have the right to terminate the Agreement and to enter or re-enter and repossess said land and the facilities thereon, and hold the same as if said Agreement had never been made or issued.

C. Title VI List of Pertinent Nondiscrimination Acts and Authorities. During the performance of this Agreement, Contractor, for itself, its assignees, and successors in interest agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

1. **Title VI of the Civil Rights Act of 1964** (42 USC § 2000d *et seq.*, 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin);
2. **49 CFR part 21** (Non-discrimination in Federally-assisted programs of the Department of Transportation — Effectuation of Title VI of the Civil Rights Act of 1964);
3. **The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970** (42 USC § 4601) (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
4. **Section 504 of the Rehabilitation Act of 1973** (29 USC § 794 *et seq.*), as amended (prohibits discrimination on the basis of disability); and 49 CFR part 27;
5. **The Age Discrimination Act of 1975**, as amended (42 USC § 6101 *et seq.*), (prohibits discrimination on the basis of age);
6. **Airport and Airway Improvement Act of 1982** (49 USC § 471, Section 47123), as amended (prohibits discrimination based on race, creed, color, national origin, or sex);
7. **The Civil Rights Restoration Act of 1987** (PL 100-209) (broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
8. **Titles II and III of the Americans with Disabilities Act of 1990**, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 USC §§ 12131 – 12189) as implemented by U.S. Department of Transportation regulations at 49 CFR parts 37 and 38.
9. **The Federal Aviation Administration’s Nondiscrimination statute** (49 USC § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
10. **Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations**, which ensures nondiscrimination against minority populations by

discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations.

11. **Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency**, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100).
12. **Title IX of the Education Amendments of 1972**, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 USC 1681 et seq).

D. **DBE.** Contractor acknowledges that the provisions of 49 CFR, Part 23, Disadvantaged Business Enterprises ("DBE"), as such regulations may be amended, and such other similar regulations as may be enacted, may be applicable to the activities of Contractor at the Airport, unless exempted by said regulations, and by choosing to operate at the Airport, Contractor shall be deemed to have agreed to comply with the regulatory agencies, in reference thereto. These requirements may include, but not be limited to, compliance with DBE participation goals, the keeping of certain records of good faith compliance efforts, which would be subject to review by the various agencies, the submission of various reports and, if so directed, the contracting of specified percentages of goods and services contracts to DBEs.

EXHIBIT B

**BAA CONTRACTOR INSURANCE REQUIREMENTS
(NON-AIRSIDE SERVICES)**

<u>Type of Coverage</u>	<u>Minimum Limits</u>
Worker's Compensation	Statutory
Employee's Liability	\$1,000,000 Each Accident
\$1,000,000 Disease – Policy Limit	
\$1,000,000 per Employee	

Requirements:

1. Voluntary Compensation Endorsement
2. Waiver of Subrogation

General Liability	\$1,000,000 each occurrence
\$2,000,000 General Aggregate	
\$2,000,000 Completed Operations/Products Aggregate	
\$2,000,000 Personal Injury	
\$5,000 Medical Payments	

Requirements:

1. XCU Perils Coverage
2. Completed Operations Extended 3 Years
3. Broad Form Property Damage
4. Fellow Employee Coverage
5. Primary & Non-Contributory
6. Waiver of Subrogation
7. 30 Days' Notice of Cancellation to Certificate Holder
8. CG2010 and CG2037 Endorsements
9. Contractual Liability applicable to Contractor's indemnification obligations

Business Automobile property damage	\$2,000,000 per occurrence combined limit for bodily injury liability and property damage
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Requirements:

1. Covers owned, non-owned and hired autos
2. Primary & Non-Contributory
3. Waiver of Subrogation
4. 30 Days' Notice of Cancellation to Certificate Holder

Umbrella	\$5,000,000
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Builder's Risk Policy

Amount of Project

1. Contractor provides coverage for Contractor's equipment on the job site and all construction material and equipment which is scheduled for the Work but has not been delivered to the Job Site
2. Coverage shall insure interest of Owner and Contractor
3. Provide Replacement Cost
4. Event of Loss, proceeds of any claim shall be paid to the Owner who shall apportion the proceeds between the Owner and the Contractor as their interest may appear
5. Coverage includes flood and earth movement
6. Per Project Aggregate

Pollution Policy

\$1,000,000 (*Depending on project*)

Professional Liability

\$1,000,000 (*Depending on project*)



Exhibit 1

AVCON, INC.
ENGINEERS & PLANNERS

5555 E. Michigan Street, Ste. 200
Orlando, Florida 32822
407.599.1122 | avconinc.com

April 3, 2024

2024.0329.01 - DP21

Mr. Lee Herard
Birmingham Airport Authority
5900 Messer Airport Highway
Birmingham, Alabama 35212

**Reference: Birmingham Shuttlesworth International Airport (BHM) Stormwater
Pumphouse Emergency Generator Sizing
Project Number 2024.0329.01**

AVCON was tasked to review the existing BHM Stormwater Pumphouse electrical system with the goal of properly sizing a new emergency generator for the system. The generator would be required to assume the electrical load of the stormwater pumphouse in the event of a utility power failure.

The existing system was constructed and commissioned in 1998. No as-built drawings were available. Equipment manuals for the Eaton motor control center were found in the pumphouse. AVCON contacted Eaton Corporation (EATON), Caterpillar, Inc. (CAT), Ring Power Corporation, and Control Systems, Inc. (CSI).

AVCON assembled all available information and using that information in concert with the equipment vendors made the following assumptions.

General Assumptions

- Stormwater pumps are 300 horsepower. This assumption is based upon the information contained in the EATON MCC documentation and the motor full load current of 370 to 380 amperes measured by BHM staff. Copy of EATON Manual attached.
- Only one pump will start at the same time. All four pumps may run simultaneously with a time gap between start commands. Control Systems Inc. (CSI) Leslie Fitzhugh (601) 974-2751.
- AVCON is assuming the structure is physically capable of supporting the replacement generator. AVCON was unable to review any structural documents and does not know the gross weight of the proposed new or existing generator/tank /enclosure assembly. The existing fuel tank is 18.5 feet long, 7 feet wide 10 inches deep. The generator is equipped with a weatherproof enclosure.
- CAT asked: "I read this as: one pump will come on at a level but if storm water keeps rising then #2, then #3, and if still rising then #4. If that it is true, is it typical weather for four pumps to actually be used?"



The response provided to CAT is: *"The airport has never seen all four pumps running at the same time. Typically, no more than 2 pumps sometimes 3 pumps. But since the pump station is designed with four pumps, we need to ensure all four pumps can run. Are we getting into the load factor? What if we assume that the four pumps will only be needed 20% of the time?"*

Load Factor is the average load over a period of time that a generator system is designed for.

CAT's response is: *"Knowing that two or three is the typical operation is good. This gen selection can handle all four, but with two or three in some staged usage the application will very likely be right near the target load factor window. Nothing further is needed on this subject. Only wanted to understand the pump system for this selection."*

Research

The existing utility service is a 480/277-volt, 1,600-amp, 3-phase, 4-wire system with a 1600-amp main circuit breaker. The utility main circuit breaker is a Challenger molded case 1600-amp catalog # CR316T36W.

The existing generator is a Caterpillar 3508 engine with 900eKW generator rated 480/277-volt, 1,600-amp, 3-phase, 4-wire system, 0.8 PF. The generator main circuit breaker is a 1600-amp Merlin Gerin molded case breaker.

The two systems are connected by a Russelectric 1600-amp, 480/277-volt, 3-phase 4-wire automatic transfer switch.

The Russelectric transfer switch powers an EATON Cutler Hammer Freedom 2100 480/277-volt, 3-phase, 4-wire motor control center (MCC). The motor control center has a 1,600-amp main circuit breaker.

The generator must be sized to accommodate the running of four 300 horsepower 480-volt, 3-phase submersible pumps simultaneously. The full load current of one existing 300 hp pump motor is 370 to 380 amps. Only one pump is permitted to start at a time. There are approximately 15 kVA total of building and auxiliary loads connected to the MCC.

Each of the four pumps is powered thru a reduced voltage autotransformer (RVAT) motor starter. The autotransformers are set at 65%. The motor starter data is included in the MCC manual attached.

Recommended Generator Size

The logical assumption would be to simply size the new generator identical to the existing unit. The existing generator is a 3508 engine with a 900eKW generator. The unit was built in 1998.

CAT's engine families have gone through standard generations and upgrades. New technologies and environmental requirements necessitated changes and upgrades to the generator industry. The CAT 3508 engines are now legacy units.



CAT's (SpecSizer report attached) sizing program dictates a 1,000 ekW / 1,250 kVA to operate the pump station.

Recommendations

- A Short Circuit/Coordination/Over-Burden/Arc Flash Study should be performed for the facility.
- The CSI pump control panel has a $\frac{3}{4}$ turn potentiometer "power on delay" for each pump. This power on delay is identified on the control board and is in effect only upon initial power up of the panel, i.e., upon loss of utility power and generator picks up the load. Pump 1 should be set to zero delay, pump 2 set to 1/3 of the available delay, pump 3 to 2/3 of available delay and pump 4 to the full delay. The delay range is from 0 seconds to 75 seconds. The existing control panel was installed in December of 2023. CSI's Leslie Fitzhugh (601) 355-8594 is willing to help set the timers if needed.

If you should have any additional questions or concerns, please let us know.

Sincerely,

AVCON, INC.

A handwritten signature in black ink that reads "Carl S. Johnson II".

Carl S. Johnson II, ACE
Senior Aviation Lighting Specialist

Attachments:

- CAT Spec Sizer Project Report - BHM Emergency (1)_11052342
- BHM Cutler Hammer Freedom 2100 Motor Control Center Order # HBH49874



Project Sizing Report

Sizing Id	11052342	Electricity Supply	60 Hz 480/277 V
Project Name	BHM Emergency (1)	Connection	STAR
Customer Name	Avcon	Max. Ambient Temperature	90.0 F
Region	U.S.	Altitude	643.0 Ft. A.S.L
Prepared By	Joseph Dickinson	Humidity	75%
Modified Date	1-Apr-2024	Project Description	

Load Analysis Summary

Max Transient Load Step	681.2 SkVA / 161.3 SkW
Peak Transient Load Step	1,328.1 SkVA / 868.6 SkW
Final Running Load	1,063.0 kVA / 956.2 kW / 0.90 PF
Max Running Non Linear Load	0.0 RKVA
Selection Criteria	Step 4 Peak SkW requirements
Project THDI	0%

Generator Set

Engine Model	(1) of C32	Nameplate Rating	1,000.0 ekW / 1,250.0 kVA / 0.8 PF
Package Model	D1000GC	Site Output Rating	1,000 ekW / 1,250 kVA
Voltage Regulator and Slope	DER1 2:1 slope;	Rating Type	Standby
Feature Code	C32DRA0	Open / Enclosure	Open
Fuel	Diesel	UL Listed	UL Listed
Sizing Methodology	Conventional	Capacity Used	95.6%
Project THDV	<5%	Generator Set Type	Stationary

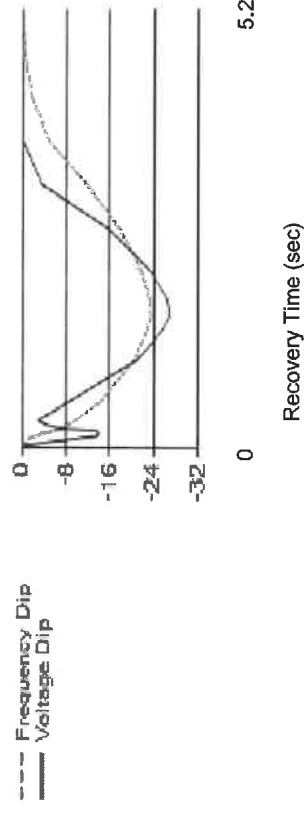
Engine	
Make/Model	C32
Aspiration	TA
Cylinder Configuration	VEE - 12
Speed	1800 RPM
Engine Performance Number	DM9933
Fuel Consumption at 100% Load	71.5 gph
Alternator	
Alternator Type/Frame Size	SR500 / E3853L4
Alternator Winding Pitch	0.6667
Excitation/Winding Type	PM / RANDOM
Alternator Arrangement Number	6145654
Subtransient Reactance X"d	0.0879
Emissions / Certifications	EPA ESE
Governor	ADEM4
Aftercooler Type	ATAAC
Displacement	1,959 Cubic Inch / 32 Liter
Bore	145
Stroke	162
Insulation Class	H
Temperature Rise	105 C
Number Of Poles	4
Number of Leads	12
Rated Amps	1,503.5

**** See your Caterpillar dealer and/or Spec Sheet for technical information.

**** Package Power Tolerance: +/- 5%

Block Load(Only) Transient Response *			
Load Change %	FDip %	VDip %	Recovery Time (sec)
0 - 25	<5%	<5%	< 3
0 - 50	5.7	7.5	< 3
0 - 75	14.5	10.8	3.4
0 - 100	23.4	26.9	5.2

0 - 100 Load Change %



Transient Performance

Block Load (only) Transient Response values are at factory conditions with a resistive load. This information is representative of a typical Cat generator set, but is not guaranteed. Generator set block load capabilities at site conditions may vary from factory transient response test results due to site altitude, site ambient, and engine to engine variation.

Step 4 Total	30%	30%	<5%	9.4%	671.8	147.8	1,063.0	956.2					
Total Through Step 4									1,328.1	868.6	1,063.0	956.2	
Load Analysis Summary : Generator set meets site requirements													
					Maximum Step					Maximum Peak			Final Running
					SKVA	SKW			SKVA	SKW	kVA	kW	
					681.2	161.3			1,328.1	868.6	1,063.0	956.2	



Engine Room Tools Summary

Project Name	BHM Emergency (1)	Electricity Supply	60 Hz 480/277 V
Customer Name	Avcon	Rating Type	Standby
Region	U.S.	Max. Ambient Temperature	90.0 F
Prepared By	Joseph Dickinson	Altitude	643.0 Ft. A.S.L
Modified Date	1-Apr-2024	Humidity	75%
Engine Model	(1) of C32	Nameplate Rating	1,000.0 ekW / 1,250.0 kVA / 0.8 PF
Fuel Tank Summary			
Running Hours	hr	Fuel Tank Size	Data coming soon
Oversize Factor	%	Usable Capacity	Data coming soon
Fuel Consumption @ 100% Load	71.46 US gal/hr		
Radiator Duct and Room Fresh Air Louver Designer Summary			
Duct Dimensions from Radiator Side (Length)	87.46 in	Combustion Airflow	3,105.24 ft ³ /min
Duct Dimensions from Radiator Side (Width)	78.77 in	Minimum Louver Area	0.22 ft ²
Heat Radiation from Engine & Alternator	168.80 kW	Temp Rise	Data coming soon
Engine & Alternator Airflow	Data coming soon	Radiator Duct Area	0.11 ft ²
Exhaust Back Pressure Summary			
Total Straight Pipe Length	0 ft	Exhaust Gas Flow	8,116.25 ft ³ /min
Total Number Of 90 Deg Long Radius Elbow	0	Muffler Pressure Drop	Data coming soon
Total Number Of 90 Deg Short Radius Elbow	0	Pressure Drop in Exhaust	0.00 psi
Total Number Of 45 Deg Elbow	0	Max Allowable Pressure Drop	Data coming soon
Minimum Exhaust Pipe Diameter	Data coming soon		
Stack Temperature	892.47 Deg. F		
Gas Density	0.03 lb/ft ³		

Disclaimer: These engine room design calculations are intended for general information and guidance purpose only. A professional engineer, licensed in the appropriate field of engineering, should be consulted for a formal evaluation. Caterpillar disclaims all representations and warranties of any kind and shall have no liability in law or equity for damages consequential or otherwise arising from the use of these calculations.

REVS

ENCLOSURE SPECIFICATIONS

Enclosure Type - NEMA 1 Indoor Gasketed
Depth - 21"
Configuration - Front Mounted Only
Horizontal Wireway - 9"Top-9"Bottom

Paint Finish - ANSI-61-Exterior White-Interior ONE Coat(s) Exterior Paint Applied

Channel Sills - WITHOUT END COVERS

Enclosures comply with UL845's "two meter rule" when the bottom of the MCC is at the same level as the operator's platform.

APPLICABLE DESIGN STANDARDS AND ELECTRICAL CODES:

NEC Article 430, Part H, Sections 92-98
NEMA Standard ICS 2-322
UL Standard UL845, File No. E47048

NAMEPLATE SPECIFICATIONS:

Master Nameplate Letter Size - 7/8"
Master Nameplate Color - Black with White letters
Master Nameplate Located in Structure - 1
Unit Nameplate Size - 1"-X-2.5"
Unit Nameplate Letter Size - 3/16"
Unit Nameplate Color - Black with White letters
Unit Nameplate Type - Engraved
Nameplates attached with - Stainless Steel Self Tapping Screws

MASTER NAMEPLATE: Line-1 MCC
 Line-2
 Line-3
 Line-4
 Line-5
 Line-6
 Line-7

SPECIAL ENCLOSURE FEATURES:

LIGHTNING ARRESTOR/SURGE CAPACITOR (SYSPRO, WD-SP) LOCATED IN TOP HORIZONTAL WIREWAY OF STRUCTURE 1.

Prepared By: Ron Michael

Date: 11/19/97

MCC Title: MCC

Drawing Description: Enclosure Specifications

Cutler-Hammer
Fayetteville, North Carolina

G.O.: HBH49874

Item: 001

Rev 1

Sheet 2 of 6

REVS	2	REVISED PER RE-CA 12/3/97 RMM	3	REVISED FOR GO NP 4/23/98
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BUS SYSTEM SPECIFICATIONS

Horizontal Bus Rating - 1600 AMP
Horizontal Bus Material - Silver Plated Copper
Bus Bracing - 100K RMS Symmetrical Withstand Rating
Bus System Maximum Temperature Rise - 50 Degrees C

Vertical Bus Ratings:
- NO VERTICAL BUS - Vertical Section # 1 - 5
Vertical Bus - 600 A Vertical Section # 6

Vertical Bus Material - Tin Plated Copper
Vertical Bus Barrier - Red Flat Glass Polyester

Ground Bus Rating - 600 Amperes
Ground Bus Material - Silver Plated Copper
Ground Bus Location - TOP
Ground Terminal Size - 1-#6-350MCM
Ground Terminal Location - INC-LINE

Neutral Bus Rating - 1600 Amperes
Neutral Bus Material - Silver Plated Copper with heat shrink wrap insulation.
Neutral Bus Location - BOTTOM
Neutral Terminal Size - 1-#6-350MCM
Neutral Terminal Location - INC-LINE

MCC G.O. NAMEPLATE

HBH498741T 001 FVC
1600 A
480V 3PH 4W 60HZ
SECT. 1-5 NONE
SECT. 6 600A

Prepared By: Ron Michael

Date: 11/19/97

MCC Title: MCC
Drawing Description: Bus System Specifications

Cutler-Hammer
Fayetteville, North Carolina

G.O.: HBH49874 Item: 001 Rev 3 Sheet 3 of 6



PREPARED BY
RMM

DATE
11/19/97

APPROVED BY

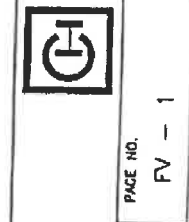
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FREEDOM 2100 MCC
MCC FRONT VIEW

CUTLER-HAMMER CORPORATION
MCC ASSEMBLY PLANT
FAYETTEVILLE NC

GENERAL ORDER NO.
HBH49874 - 001

FACE NO.
FV - 1

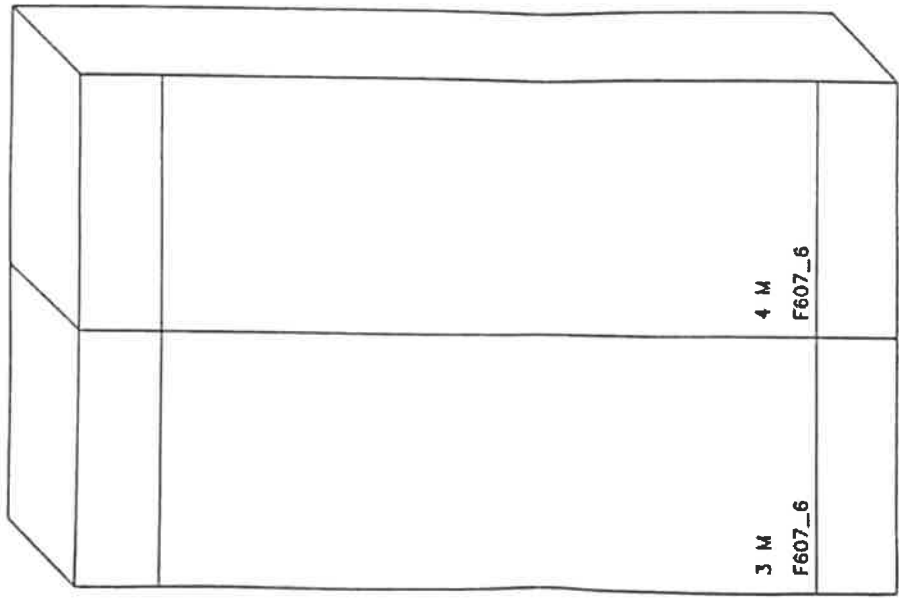


CHANGE 1

CHANGED STRUCTURE LO

4/23/98 P.SPE

2



21.00 D

A B C D E F G H J K L M N

90.00

3 M
F607_6

4 M
F607_6

3 28.00 4 28.00
56.00

PREPARED BY
RMM

DATE

11/19/97

APPROVED BY

DATE

FREEDOM 2100 MCC
MCC FRONT VIEW

GENERAL ORDER NO.

HBH49874 - 001

CUTLER-HAMMER CORPORATION
MCC ASSEMBLY PLANT
FAYETTEVILLE NC



PAGE NO.

FV - 2

1

CHANGE

2

REVISED PER

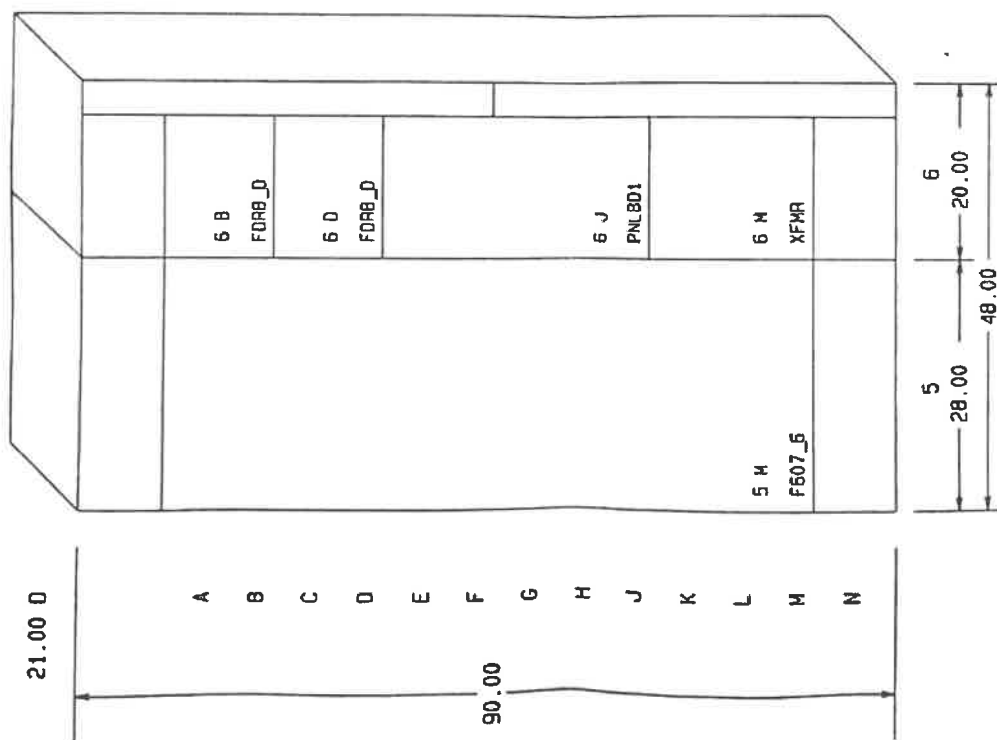
RE-CA
12/3/97

3

CHANGED
STRUCTURE TO

4/23/98

P.S.P.E.



CUTLER-HAMMER CORPORATION
 MCC ASSEMBLY PLANT
 FAYETTEVILLE NC

PREPARED BY
 RMM

DATE
 11/19/97

APPROVED BY

DATE

GENERAL ORDER NO.
 HBH49B74 - 001

FREEDOM 2100 MCC
 MCC FRONT VIEW

PAGE NO.
 FV - 3

REVS	2	REVISED PER RE-CA 12/3/97 RHM	3	REVISED FOR MANUFACTURING 4/14/98 PMS	4	CHG LUG SIZE 5/4/98 PMS			
Nameplate	Unit # Class Description Cust Unit #	Nema Size Mtr HP/KW Motor FLA Heaters CPT VA	Device Codes	Bkr /Switch Poles TM Trip /Clip MG Range/Fuse Disc. Aux Sw.	Total Intlk NO/NC	Wiring Diagram(s) Int-Rating	Unit Features		
MAIN BREAKER	1 M INCB Main Ckt Bkr DIGITRIP Solid State Trip Device 4 - 750Kcmil		SCREW Type Lugs/Phase.	RD 1600 Cable Entry - BOTTOM		WD-MB 100KA	U1		
PUMP NO.1	2 M F607 6 RVNR	6 300 360.00/ 1K VA CPT	D1 D2 D3 D4 D5 D6 D7 D8 D9	NBP 3 800A (2400 - 8000)	5NO/4NC	WD-1 18KA	U5 U3 U4 U6		
PUMP NO.2	3 M F607 6 RVNR	6 300 360.00/ 1K VA CPT	D1 D2 D3 D4 D5 D6 D7 D8 D9	NBP 3 800A (2400 - 8000)	5NO/4NC	WD-1 18KA	U5 U3 U4 U6		
PUMP NO.3	4 M F607 6 RVNR	6 300 360.00/ 1K VA CPT	D1 D2 D3 D4 D5 D6 D7 D8 D9	NBP 3 800A (2400 - 8000)	5NO/4NC	WD-1 18KA	U5 U3 U4 U6		
PUMP NO.4	5 M F607 6 RVNR	6 300 360.00/ 1K VA CPT	D1 D2 D3 D4 D5 D6 D7 D8 D9	NBP 3 800A (2400 - 8000)	5NO/4NC	WD-1 18KA	U5 U3 U4 U6		
GATE CONTROLLER	6 BL FDRB D Feeder			FDC 2 20		5599A85 A 100KA	PRI/SEC		
SEWAGE LIFT STATION	6 BR FDRB D Feeder			FDC 2 60		5599A85 100KA	PRI/SEC		
TRANSFORMER PRIMARY FEED	6 DL FDRB D Feeder			FDC 2 40		WD-PNL 100KA	PRI/SEC		
TRANSFORMER SECONDARY	6 DR FDRB D Feeder			FDC 2 80		WD-PNL 100KA	PRI/SEC		
PANELBOARD L ²	6 J PNLED1 Panelboard	PRL1 225A Chassis 120/240 1Ph 3W 30 Circuit 10000 Interrupting With BAB Circuit Breakers				WD-PNL			
Prepared By: Ron Michael			Date: 11/19/97		MCC Title: MCC Drawing Descriptions: Unit Listing				
Cutler-Hammer Fayetteville, North Carolina			G.D.: HBH49874		Item: 001		Rev 4		Sheet 4 of 6

REVS	2	REVISED PER RE-CA 12/3/97 RMM
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Nameplate	Unit # Class Description Cust Unit #	Nema Size Mtr HP/KW Motor FLA Heaters CPT VA	Device Codes	Bkr /Switch Poles TH Trip /Clip MG Range/Fuse Disc. Aux Sw.	Total Intlk NO/NC	Wiring Diagram(s) Int-Rating	Unit Features
TRANSFORMER T1	6 M XFMR Dist. Xfmr	15 KVA Dist. Trans. 480/240 - 240/120 60 Hertz 1PH 3W				WD-PNL	

Prepared By: Ron Michael	Date: 11/19/97	MCC Title: MCC Drawing Description: Unit Listing
Cutler-Hammer Fayetteville, North Carolina	G.O.: HBH49874	Item: 001 Rev 2 Sheet 5 of 6

REVS	2	REVISED FOR MANUFACTURING 4/14/98 PMS
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SYSTEM AND UNIT SPECIFICATIONS

Service Voltage: 480V 3 Phase 60 Hz 4 Wire
Control Voltage: 120V
Control Voltage Source: Individual Control Power Transformer
NEMA Class/Type Wiring - 1B

Motor Overload Protection:

Overload protection is class 20, no heater packs are supplied.

Starter Terminal Blocks to be LATCHED 7ckt Pull Apart

Starter Unit Wiring Features:

All Control Wire to be 14awg red PVC
All Power Wire to be Black TEW

Customer Load Terminal Type: Standard Device Lugs
Wiremarkers for Control Wiring to be Non-Shrink-On At Each End.

Wiring Diagrams Supplied on Inside of Unit Doors.

****** Device code LEGEND ******

- D1 Indicating Light : Transformer-PTT : Red : Run
- D2 Indicating Light : Transformer-PTT : Green : Stopped
- D3 Selector Switch : Three-Position : Hand-Off-Auto
- D4 Push Button : Momentary-Black : Start
- D5 Push Button : Momentary-Red : Stop
- D6 Meter : Elapsed-TM-MINI
- D7 Push Button : Momentary-Black : Reset
- D8 Indicating Light : Transformer-PTT : Red : OVERLOAD
- D9 Indicating Light : Transformer-PTT : Red : MOTOR OVER HEATED

****** Unit features LEGEND *****

- U1 LIGHTNING ARRESTOR/SURGE CAPACITOR : Qty : 1
- U3 Unit Contains Type MR 2 Pole Control Relay. : Qty : 1
- U4 Unit to contain Westinghouse SVM system voltage monitor. : Qty : 1
- U5 Unit to contain 4 pole AR relay. : Qty : 1
- U6 Unit contains on-delay Agastat Series 7000 timer. : 1.5-15sec : Qty : 1

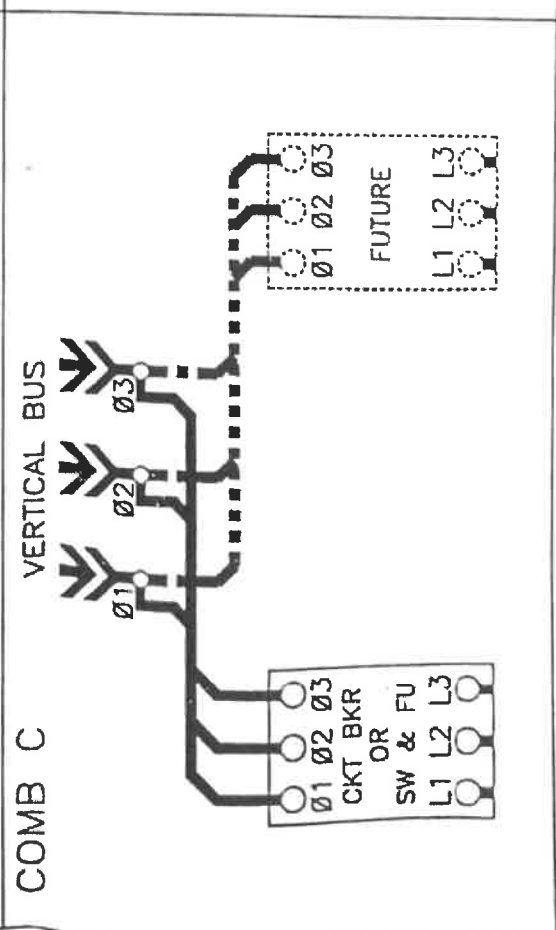
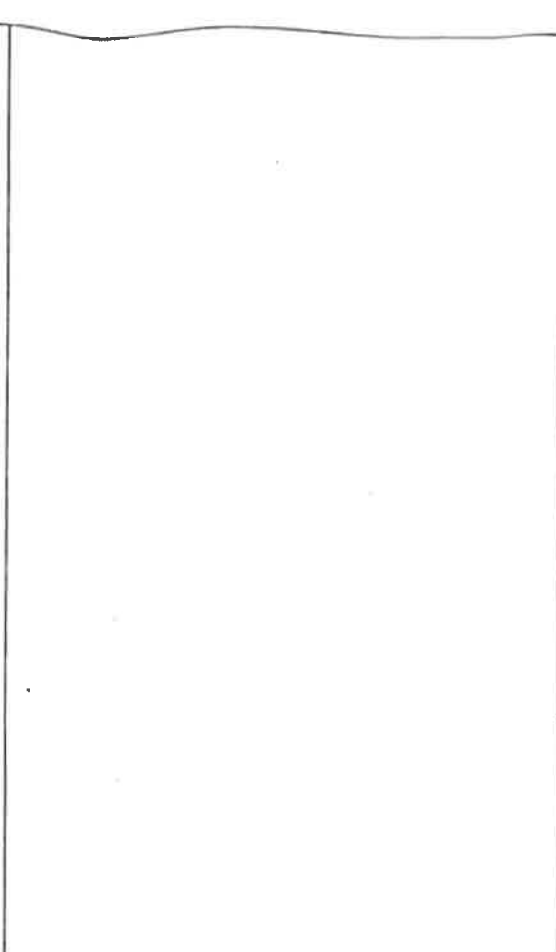
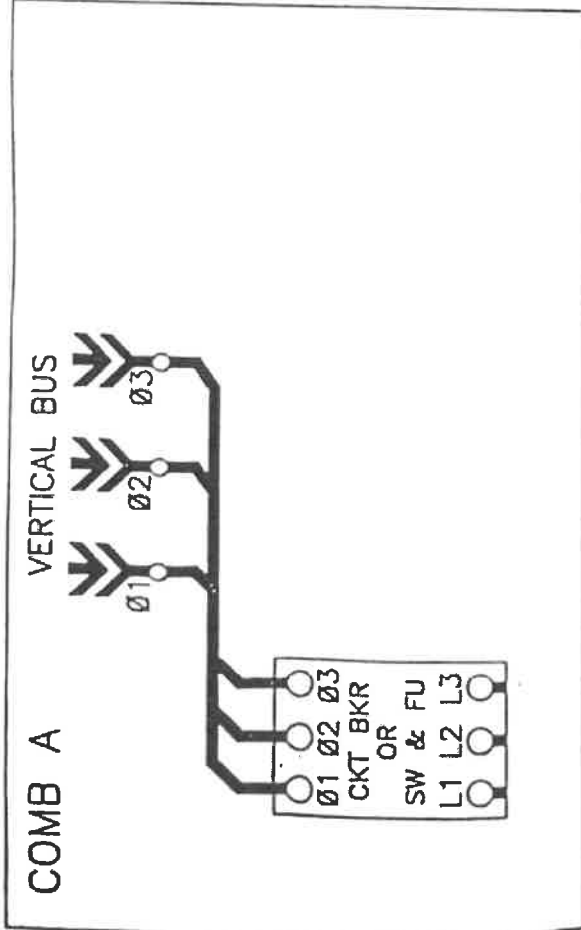
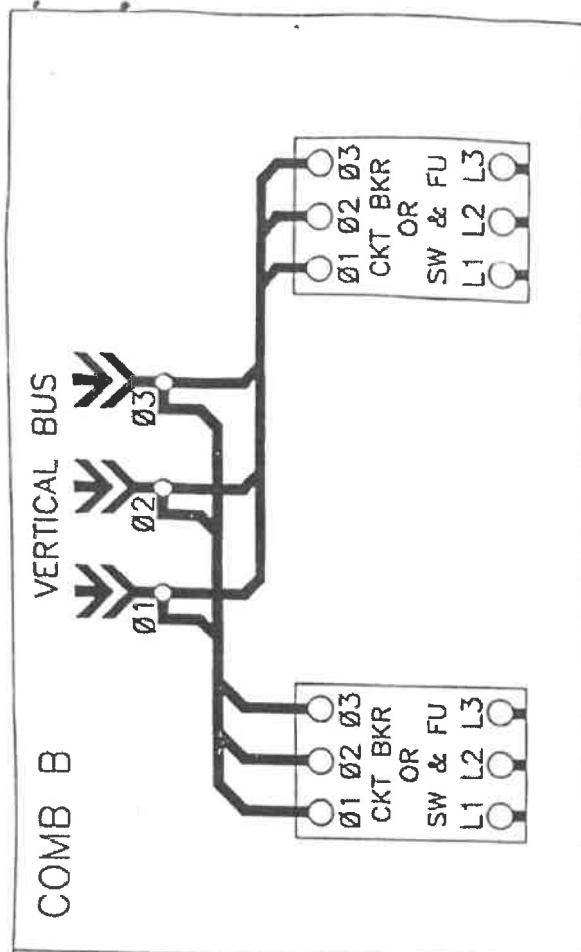
Prepared By: Ron Michael

Date: 11/19/97

Cutler-Hammer
Fayetteville, North Carolina

MCC Title: MCC
Drawing Description: Unit Specification and Features

G.O.: HBH49874	Item: 001	Rev 2	Sheet 6 of 6
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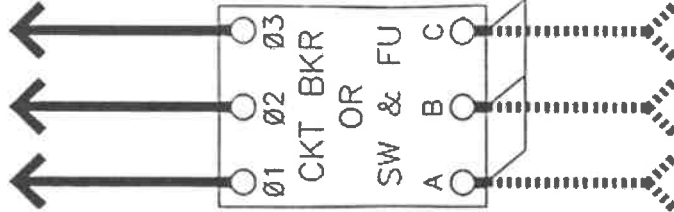


MOTOR CONTROL CENTER STANDARD UNIT WIRING DIAGRAM

COMBINATION A: SINGLE BREAKER OR SWITCH & FUSE 3 POLE
 COMBINATION B: DUAL BREAKERS OR SWITCH. & FUSE 3 POLE
 COMBINATION C: SINGLE BREAKER OR SWITCH & FUSE 3 POLE WITH FUTURE SPACE

Cutler-Hammer		E.T.N
MCC ASSEMBLY PLANT FAYETTEVILLE, NC		
REV	DRAWING NUMBER	
D	5599A85	CC

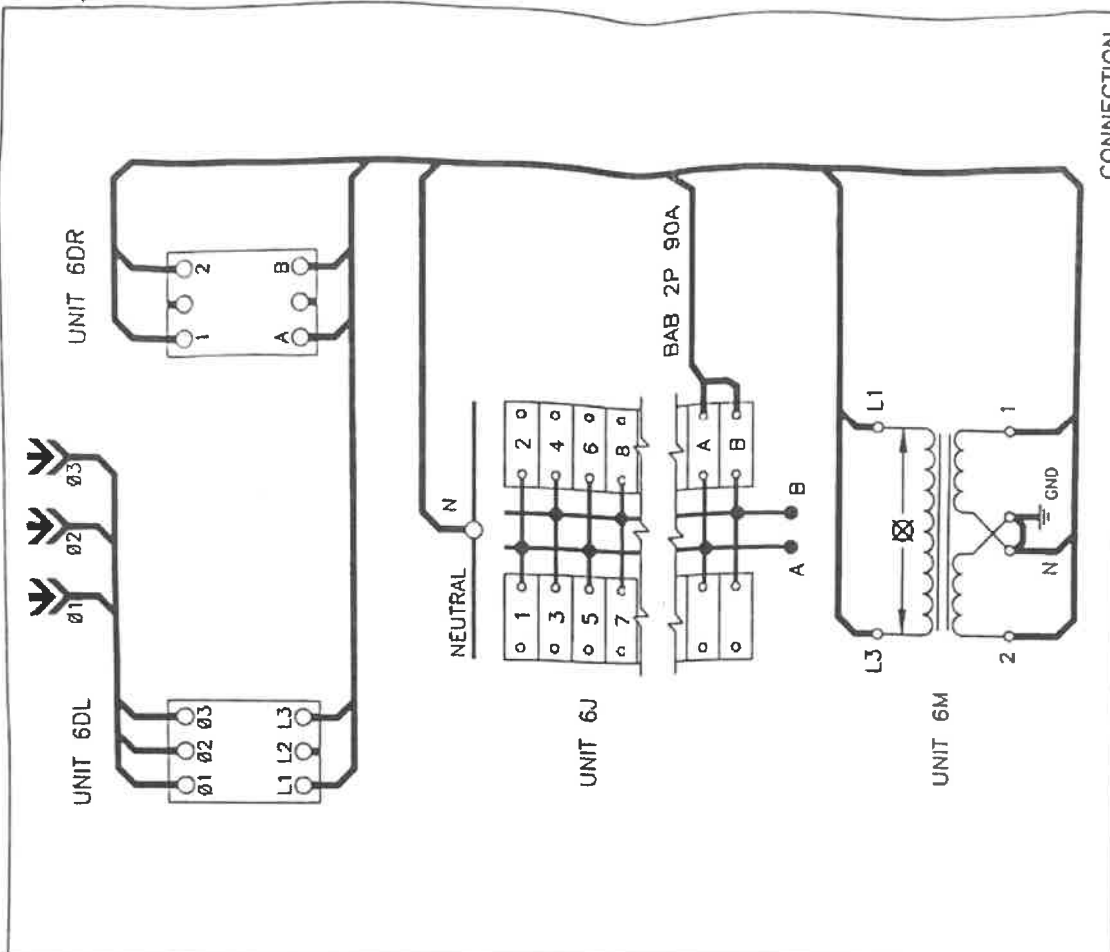
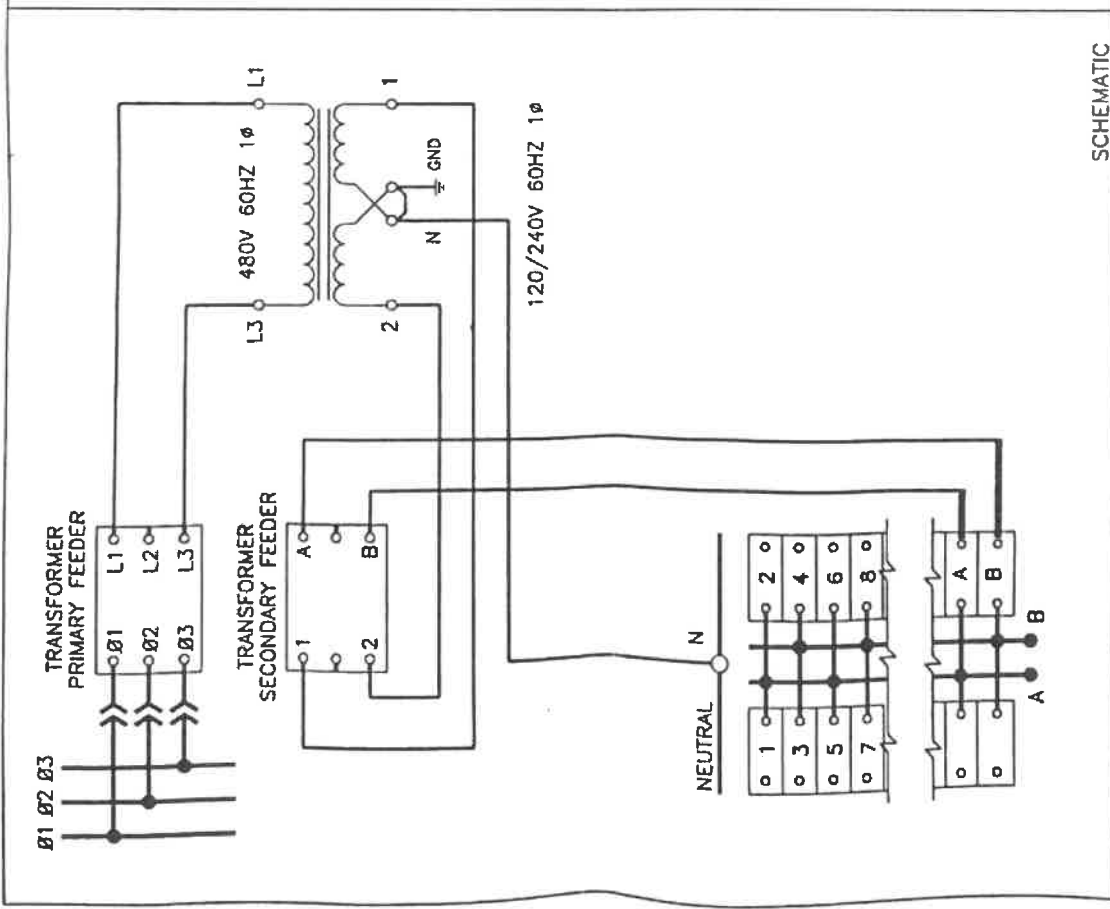
TO HORIZONTAL BUS



TO SYSPRO

INCOMING LINE

1	2	REVISION	DATE	Cutler-Hammer	Eaton
		FOR MANF.	4/14/98		
CHANGE		PAULA SIPE	4/14/98	Fayetteville, NC 28306	
		N/A		GENERAL ORDER NO. HBH49874	
		FREEDOM 2100 UNIT DIAGRAM		DIAGRAM NO. WD-MB 1 OF 1	



SCHEMATIC

CONNECTION

PREPARED BY: R. Michael
 DATE: 12/3/07
 APPROVED BY: N/A
 DATE:

Cutler-Hammer
 Fayetteville, NC 28306

CHANGE	1
REVISED FOR MANF.	2
P. SIFE	4/14/98

SERIES 2100
UNIT DIAGRAM

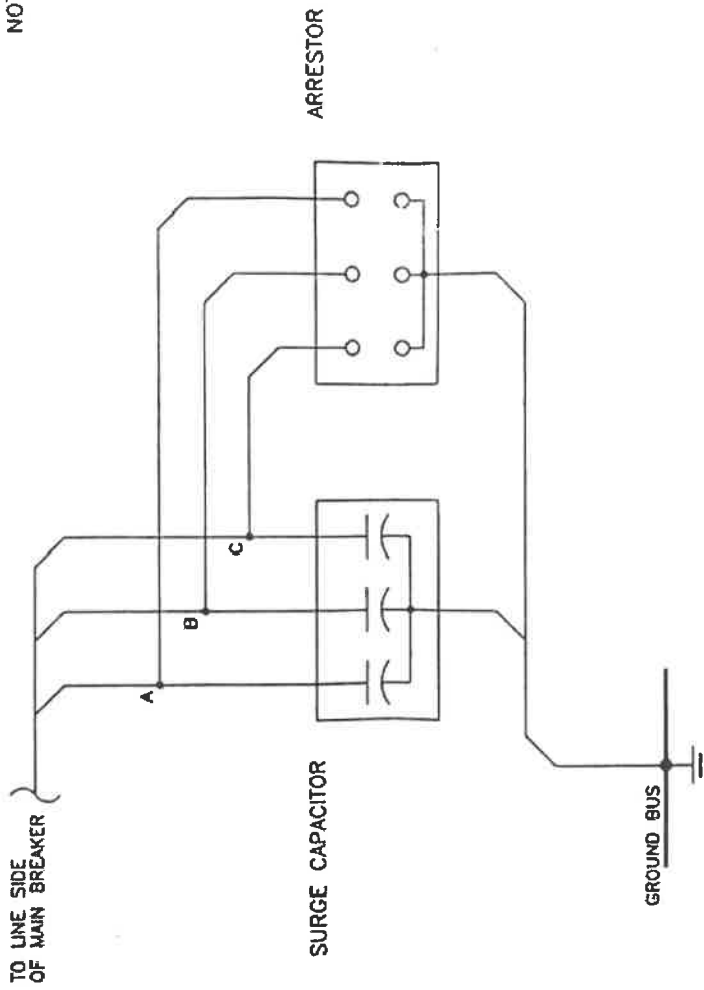
GENERAL ORDER NO. HBH49874
 PANELBOARD/TXFMR

DIAGRAM NO. WD-PNL

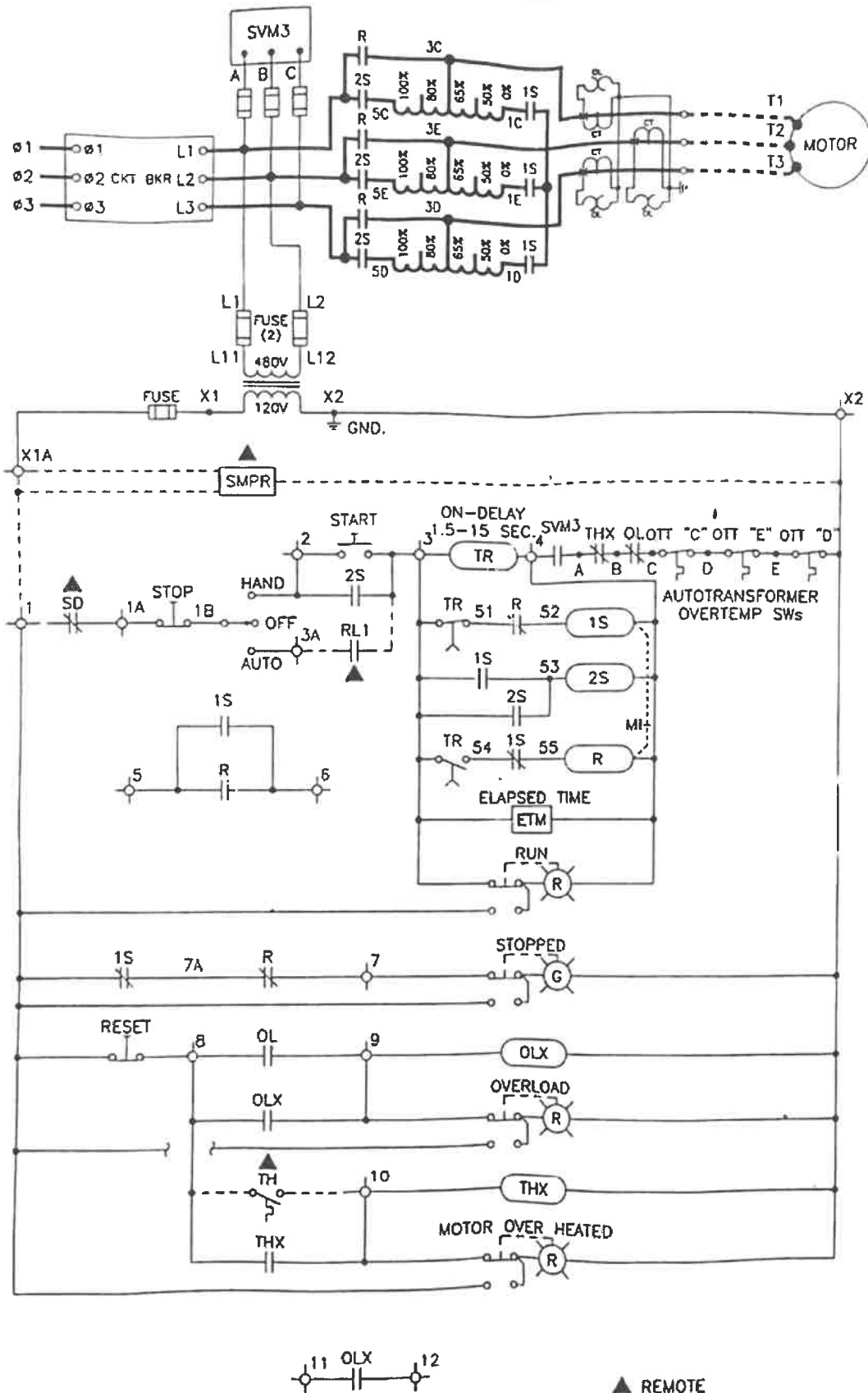
E.I.N

FAST. FILE NO.

- NOTES:
1. CONNECTIONS TO BE MADE WITH #12 BLACK WIRE.
 2. GROUND LEADS OF ARRESTOR AND CAPACITOR ARE WHITE.



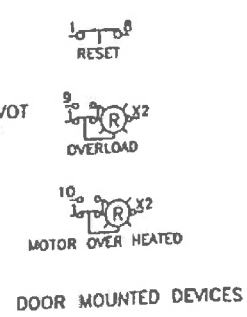
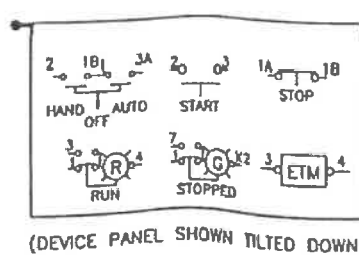
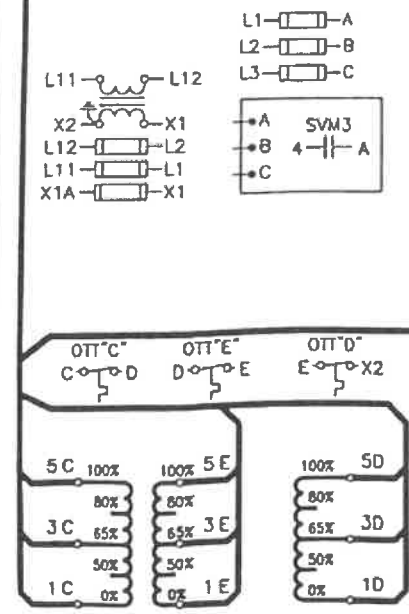
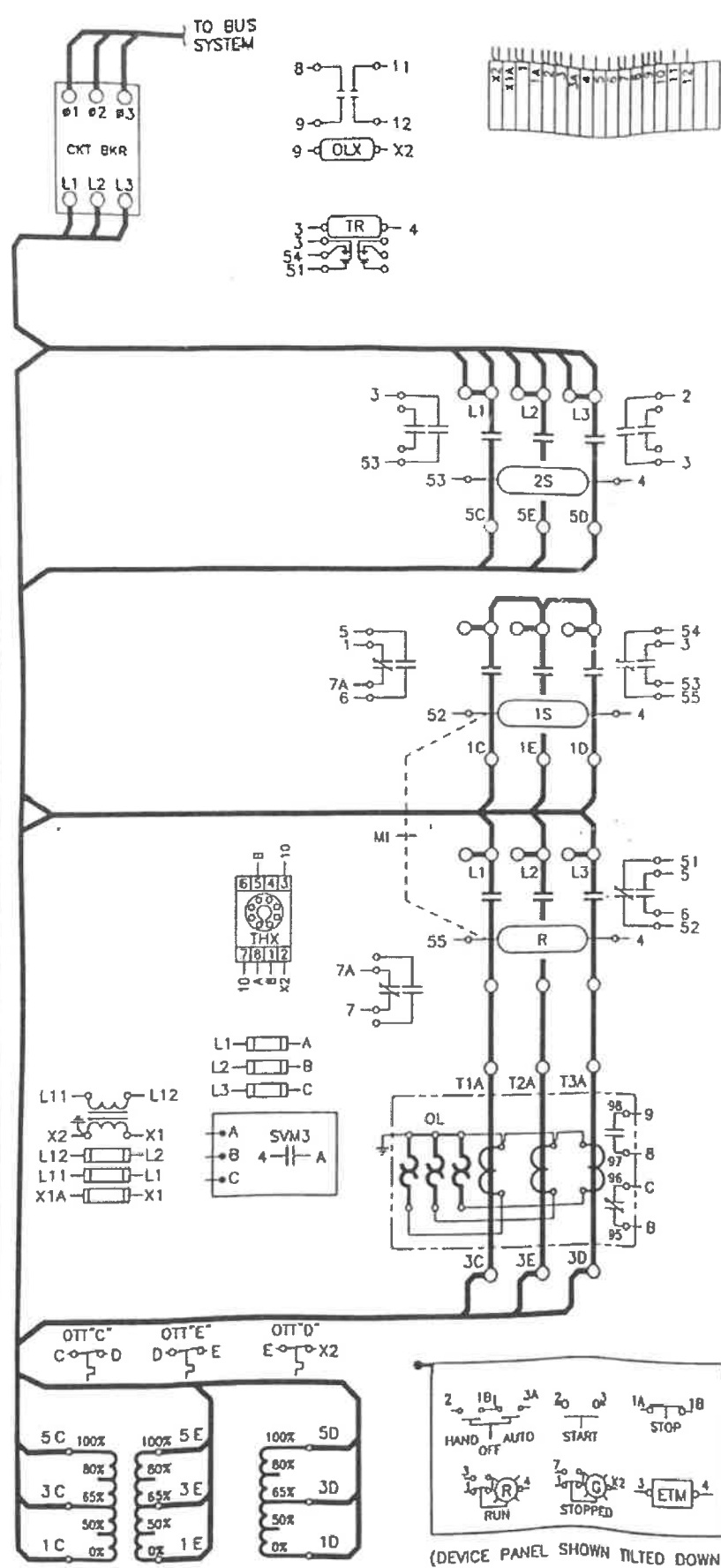
1	CHANGE		FREEDOM 2100 UNIT DIAGRAM		Cutler-Hammer		E.I.N	
	PREPARED BY: P. SIPE	DATE 4/14/98	APPROVED BY:	DATE	Fayetteville, NC 28306		DIAGRAM NO. WD-SP	
					GENERAL ORDER NO. HBH49874		Sheet 1 of 1	
					SYSTEM PROTECTION			



DATE		11/18/97	
PREPARED BY:		R. Michael	
APPROVED BY:			
FREEDOM 2100 UNIT DIAGRAM			
CUTLER-HAMMER Fayetteville, NC 28306 GENERAL ORDER NO. HBH49874			
DIAGRAM NO.		WD-1	
SHEET		1 of 2	
PUMP CONTROL			
1	CHANGE	REVISD FOR MANF.	4/14/98
2	REVISD INTERLOCKS	P.S.I.P.E.	
3	CHANGED	5/6/98	P.S.I.P.E.
4	CHANGED CNT.&XFMR	5/12/98	P.S.I.P.E.
5	CHANGED SVM WIRING	5/12/98	P.S.I.P.E.

SCHEMATIC

P.A.S.T. FILE NO. 49874WD1



1	CHANGE	FOR MANF.	4/14/98	P.S.I.P.E.	CHANGED INTERLOCKS	5/6/98	P.S.I.P.E.	CHANGED CNT.&XFR	5/12/98	P.S.I.P.E.	CHANGED SWM WIRING	5/12/98	P.S.I.P.E.
2	CONNECTION												
3		DOOR MOUNTED DEVICES											
4													
5													
PREPARED BY:		R. Michael		DATE		11/18/97		DATE		DATE		DATE	
APPROVED BY:													
FREEDOM 2100 UNIT DIAGRAM				CUTLER-HAMMER				Eaton					
GENERAL ORDER NO. HBH49874				Fayetteville, NC 28306				DIAGRAM NO. WD-1					
PUMP CONTROL				Sheet 2 of 2									

F.A.S.T. FILE NO. 49874WD1

NEUTRAL

DESIGNATION	FRAME	POLE	TRIP	CKT	FRAME	POLE	TRIP	CKT	DESIGNATION
	BAB	1-P	20-A	1	BAB	1-P	20-A	2	
	BAB	1-P	20-A	3	BAB	1-P	20-A	4	
	BAB	1-P	20-A	5	BAB	1-P	20-A	6	
	BAB	2-P	20-A	7	BAB	2-P	20-A	8	
	BAB	2-P	30-A	9	BAB	2-P	90-A	10	
				11				12	
				13				14	
				15				16	
				17				18	
				19				20	
				21				22	
				23				24	
				25				26	
				27				28	
				29				30	

PANELBOARD TYPE PRL 1
 BUS RATING AMPS 225
 VOLTAGE 120/240
 INTERRUPTING 10000
 PHASES: 1 WIRES: 3

UNIT LOCATION 6 J
 UNIT HEIGHT 30
 BREAKER MOUNTING BOLT-ON
 CIRCUITS 30

PREPARED BY RMM
 DATE 11/19/97

CUTLER-HAMMER CORPORATION
 MCC ASSEMBLY PLANT
 FAYETTEVILLE NC



SINGLE PHASE
 PANELBOARD
 ARRANGEMENT

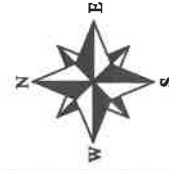
GENERAL ORDER NO.
 HBH49874 - 001

FRAME TYPE	POLE	BKR TRIP	QTY.
BAB	1	20	6
BAB	2	20	2
BAB	2	30	1
BAB	2	90	1



5900 Airport Highway
Birmingham, AL
35212

Exhibit A :
Storm Water
Pump Station
Generator



DATE: 08/14/2018
PAGE: 01 OF 01
APP: 10/20/2018



Existing Generator