SCOPE OF WORK

Generator and ATS Replacement

New Jersey State Police Hope Station
Hope, Warren County, NJ

Project No. S0676-00

STATE OF NEW JERSEY

Honorable Philip D. Murphy, Governor
Honorable Tahesha L. Way, Lt. Governor

DEPARTMENT OF THE TREASURY

Elizabeth Maher Muoio, Treasurer

DIVISION OF PROPERTY MANAGEMENT AND CONSTRUCTION

Thomas A. Edenbaum, Director

Date: July 25, 2025

Document Format Revision 8-1-2022

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SECTION **PAGE**

I. OBJECTIVE

The objective of this project is to replace the generator, automatic transfer switch and associated wiring and equipment at the New Jersey State Police Station in Hope, New Jersey.

II. CONSULTANT QUALIFICATIONS

A. CONSULTANT & SUB-CONSULTANT PRE-QUALIFICATIONS

The Consultant shall be a firm pre-qualified with the Division of Property Management & Construction (DPMC) in the following discipline(s):

- **P002 Electrical Engineering**

The Consultant shall also have in-house capabilities or Sub-Consultants pre-qualified with DPMC in:

- **P005 Civil Engineering**

As well as, **any and all** other Architectural, Engineering and Specialty Disciplines necessary to complete the project as described in this Scope of Work (SOW).

III. PROJECT BUDGET

A. CONSTRUCTION COST ESTIMATE (CCE)

The initial Construction Cost Estimate (CCE) for this project is $414,952.

The Consultant shall review this Scope of Work and provide a narrative evaluation and analysis of the accuracy of the proposed project CCE in its technical proposal based on its professional experience and opinion.

B. CURRENT WORKING ESTIMATE (CWE)

The Current Working Estimate (CWE) for this project is $660,868.

The CWE includes the construction cost estimate and all consulting, permitting and administrative fees.

The CWE is the client agency's financial budget based on this project Scope of Work and shall not be exceeded during the design and construction phases of the project unless DPMC approves the change in Scope of Work through a Contract amendment.

C. CONSULTANT'S FEES

The construction cost estimate for this project ***shall not*** be used as a basis for the Consultant's design and construction administration fees. The Consultant's fees shall be based on the information contained in this Scope of Work document and the observations made and/or the additional information received during the pre-proposal meeting.

IV. PROJECT SCHEDULE

A. SCOPE OF WORK DESIGN & CONSTRUCTION SCHEDULE

The following schedule identifies the estimated design and construction phases for this project and the estimated durations.

PROJECT PHASE	ESTIMATED DURATION (Calendar Days)
1. Site Access Approvals & Schedule Design Kick-off Meeting	**14**
2. Design Development Phase	**42**
• *Project Team & DPMC Plan/Code Unit Review & Comment*	14
3. Final Design Phase	**42**
• *Project Team & DPMC Plan/Code Unit Review & Approval*	14
4. Final Design Re-Submission to Address Comments	**7 (See Note)**
• *Project Team & DPMC Plan/Code Unit Review & Approval*	14
5. DCA Submission Plan Review	**30**
6. Permit Application Phase	**7**
• *Issue Plan Release*	
7. Bid Phase	**42**
8. Award Phase	**28**
9. Construction Phase	**120**

10. Project Close Out Phase **30**

Note: The Final Design Phase is considered complete upon the release of Construction Documents by either the DPMC Code Group or the Department of Community Affairs (DCA).

B. CONSULTANT'S PROPOSED DESIGN & CONSTRUCTION SCHEDULE

The Consultant shall submit a project design and construction schedule with its technical proposal that is similar in format and detail to the schedule depicted in **Exhibit 'A'**. The schedule developed by the Consultant shall reflect its recommended project phases, phase activities, activity durations.

A written narrative shall also be included with the technical proposal explaining the schedule submitted and the reasons why and how it can be completed in the time frame proposed by the Consultant.

This schedule and narrative will be reviewed by the Consultant Selection Committee as part of the evaluation process and will be assigned a score commensurate with clarity and comprehensiveness of the submission.

V. PROJECT SITE LOCATION & TEAM MEMBERS

A. PROJECT SITE ADDRESS

The location of the project site is:

New Jersey State Police Hope Station
County Route 521
P.O. Box 360
Hope, NJ 07844

See **Exhibit 'B'** for the project site location map.

B. PROJECT TEAM MEMBER DIRECTORY

The following are the names, addresses, and phone numbers of the Project Team members.

1. DPMC Representative:

Name: Youstina Mansy, Project Manager
Address: Division of Property Management & Construction
20 West State Street, 3rd Floor
Trenton, NJ 08608-1206
Phone No: (609) 633-2077
E-Mail: Youstina.Mansy@treas.nj.gov

2. New Jersey State Police:

Name: Sgt. Timothy Praschil #6423
Address: Facility & Asset Control Bureau
Phone No: (609) 882-2000 Ext. 2845
E-Mail: Timothy.Praschil@NJSP.org

VI. PROJECT DEFINITION

A. BACKGROUND

The New Jersey State Police procured the services of Mott MacDonald to perform an assessment of the existing generator, automatic transfer switch and associated equipment that serves the New Jersey State Police Hope Station. MacDonald provided recommendations to upgrade the equipment with cost estimates.

B. FUNCTIONAL DESCRIPTION OF THE BUILDING

A description of the existing generator system by Mott MacDonald can be found in the report entitled *"New Jersey State Police – Hope Station Generator Replacement Evaluation Report"* shown in **Exhibit 'C'**.

The existing Cummins generator to be replaced is located on the northwest corner of the building. It does not function. There is a temporary Generac generator on the northeast side of the building as well. Both will be removed.

The associated transfer switch is located within the electrical room in the building. A disconnect switch is located in an adjoining room. Both will be disconnected and removed. A new concrete pad for the new generator is required along with protective bollards.

A Property Condition Assessment Report from 2007 by Edwards and Kelcey will be provided for background but may have dated information. Drawings for a building renovation completed in 2013 will also be provided.

VII. CONSULTANT DESIGN RESPONSIBILITIES

A. DESIGN REQUIREMENTS

1. Electrical:

The Consultant shall review the report entitled *"New Jersey State Police – Hope Station Generator Replacement Evaluation Report"* by Mott MacDonald shown in **Exhibit 'C'** and provide design, specifications, bid/award and construction administration services to remove and replace the generator, automatic transfer switch and associated wiring and equipment serving the New Jersey State Police Hope Station.

The Consultant shall clearly identify which code article (NEC 700, 701 or 702) will be used for the design and ratings of equipment.

If the connected electrical systems fall into a NEC 700 or 701 system, the consultant shall indicate what type of system(s) will be supplied by the generator and transfer switches/switchgear. The equipment that is specified needs to be listed for the use.

Any modifications to the existing electrical switch gear or panel boards shall be evaluated in accordance with NEC Article 90.7.

2. Site Planning:

The Consultant shall provide all design services for site planning to locate equipment, including pad construction, geotechnical testing, protective bollards, regrading and utility locating services as necessary.

3. Generator Pad:

The Consultant shall provide the design and specifications to construct a new concrete pad for the new generator. Provide signed and sealed structural calculations, verifying that the new pad will support the new equipment.

4. Control Equipment:

Provide the design and specification for a control system, new breaker switchgear, and all further details regarding the sequence of operations.

5. Generator Annunciator Panel:

The Consultant shall include in their design local annunciator panels and wireless annunciator panels at approved occupied workstations within the facility, as applicable.

6. Equipment Installation Schedule:

Develop a proposed sequenced phased construction schedule that identifies how the new generators, components and other related items are to be installed. Minimize the required downtime and switchover periods. Temporary emergency backup power shall be provided if required. The final approved schedule shall be included in Division 1 of the specification for Contractor reference during bidding.

Determine all construction schedule coordination requirements with the local Electrical Utility Company and representatives of the NJ State Police.

7. Equipment Tests:

The design documents shall include detailed test requirements of the new equipment and systems. The Contractor and a certified testing firm shall perform operational tests of the completed installation to certify their proper operation. All test results shall be bound in a booklet and three (3) copies presented to the Project Manager for record.

8. Spare Parts:

A critical spare parts list shall be prepared for all appropriate items and purchased as part of this project. The Consultant shall include provisions for the manufacturer/vendor of the equipment to provide critical spare and maintenance parts as part of this project. All of the critical parts shall be reviewed and approved by the Client Agency.

B. DESIGN MEETINGS & PRESENTATIONS

1. Design Meetings:

Conduct the appropriate number of review meetings with the Project Team members during each design phase of the project so they may determine if the project meets their requirements, question any aspect of the contract deliverables, and make changes where appropriate. The

Consultant shall describe the philosophy and process used in the development of the design criteria and the various alternatives considered to meet the project objectives. Selected studies, sketches, cost estimates, schedules, and other relevant information shall be presented to support the design solutions proposed. Special considerations shall also be addressed such as: Contractor site access limitations, utility shutdowns and switchover coordination, phased construction and schedule requirements, security restrictions, available swing space, material and equipment delivery dates, etc.

It shall also be the responsibility of the Consultant to arrange and require all critical Sub-Consultants to be in attendance at the design review meetings.

Record the minutes of each design meeting and distribute within three (3) calendar days to all attendees and those persons specified to be on the distribution list by the Project Manager.

2. Design Presentations:

The minimum number of design presentations required for each phase of this project is identified below for reference:

Design Development Phase: One (1) oral presentation at phase completion.

Final Design Phase: One (1) oral presentation at phase completion.

C. EXISTING DOCUMENTATION

Copies of the following documents will be provided to each Consulting firm at the pre-proposal meeting to assist in the bidding process.

- DPMC Project J0202-00: Hope Station Property Condition Assessment, November 2007, Edwards and Kelcey
- Building Renovations State Police Station Hope, As-Builts 12/17/2013, Jarmel Kizel Architects and Engineers
- State Police Barracks, Rte. 521, Hope, New Jersey, July 27, 1984, Manders/Merighi Associates Architects

Review these documents and any additional information that may be provided at a later date such as reports, studies, surveys, equipment manuals, as-built drawings, etc. The State does not attest to the accuracy of the information provided and accepts no responsibility for the consequences of errors by the use of any information and material contained in the documentation provided. It shall be the responsibility of the Consultant to verify the contents and assume full responsibility for any determination or conclusion drawn from the material used. If the information provided is insufficient, the Consultant shall take the appropriate actions necessary to obtain the additional information required.

All original documentation shall be returned to the provider at the completion of the project.

VIII. PERMITS & APPROVALS

A. NJ UNIFORM CONSTRUCTION CODE PLAN REVIEW AND PERMIT

The project construction documents must comply with the latest adopted edition of the NJ Uniform Construction Code (NJUCC).

The latest NJUCC Adopted Codes and Standards can be found at:

http://www.state.nj.us/dca/divisions/codes/codreg/

1. NJ Uniform Construction Code (NJUCC) Plan Review

Consultant shall estimate the cost of the NJUCC Plan Review by DCA and include that amount in their fee proposal line item entitled **"Plan Review and Permit Fee Allowance"**, refer to paragraph X.A.

Upon approval of the Final Design Phase Submission by DPMC, the Consultant shall submit the construction documents to the DCA, Bureau of Construction Project Review to secure a complete plan release.

As of July 25, 2022, the DCA is only accepting digital signatures and seals issued from a third party certificate authority.

Procedures for submission to the DCA Plan Review Unit can be found at:

https://www.state.nj.us/dca/divisions/codes/forms/pdf_bcpr/pr_app_guide.pdf

Consultant shall complete the "Project Review Application" and include the following on Block 5 as the "Owner's Designated Agent Name":

Trevor M. Dittmar, DPMC
PO Box 235
Trenton, NJ 08625-0235
Trevor.Dittmar@treas.nj.gov 609-984-5529

The Consultant shall complete the NJUCC "Plan Review Fee Schedule", determine the fee due and pay the NJUCC Plan Review fees, refer to Paragraph X.A.

The NJUCC "Plan Review Fee Schedule" can be found at:

http://www.state.nj.us/dca/divisions/codes/forms/pdf_bcpr/pr_fees.pdf

2. NJ Uniform Construction Code Permit

Upon receipt of a complete plan release from the DCA Bureau of Construction Project Review, the Consultant shall complete the NJUCC permit application and all applicable technical sub-code sections. The "Agent Section" of the application and certification section of the building sub-code section shall be signed. These documents, with **six (6) sets of DCA approved, signed and sealed construction documents** shall be forwarded to the DPMC Project Manager.

The Consultant may obtain copies of all NJUCC permit applications at the following website:

https://www.nj.gov/dca/divisions/codes/resources/constructionpermitforms.html

All other required project permits shall be obtained and paid for by the Consultant in accordance with the procedures described in Paragraph VIII.B.

3. Prior Approval Certification Letters

The issuance of a construction permit for this project may be contingent upon acquiring various "prior approvals" as defined by N.J.A.C. 5:23-1.4. It is the Consultant's responsibility to determine which prior approvals, if any, are required. The Consultant shall submit a general certification letter to the DPMC Plan & Code Review Unit Manager during the Permit Phase of this project that certifies all required prior approvals have been obtained.

In addition to the general certification letter discussed above, the following specific prior approval certification letters, where applicable, shall be submitted by the Consultant to the DPMC Plan & Code Review Unit Manager: Soil Erosion & Sediment Control; Water & Sewer Treatment Works Approval; Coastal Areas Facilities Review; Compliance of Underground Storage Tank Systems with N.J.A.C. 7:14B; Pinelands Commission; Highlands Council; Well Construction and Maintenance; Sealing of Abandoned Wells with N.J.A.C. 7:9D; Certification that all utilities have been disconnected from structures to be demolished; Board of Health Approval for Potable Water Wells; Health Department Approval for Septic Systems; and Notification to Adjoining Property Owners with N.J.A.C. 5:23-2.17(c). It shall be noted that in accordance with N.J.A.C. 5:23-2.15(a)5, a permit cannot be issued until the letter(s) of certification is received.

4. Multi-building or Multi-site Permits

A project that involves many buildings and/or sites requires that a separate permit shall be issued for each building or site. The Consultant must determine the construction cost estimate for *each* building and/or site location and submit that amount where indicated on the permit application.

5. Special Inspections

In accordance with the requirements of the NJUCC N.J.A.C. 5:23-2.20(b), Bulletin 03-5 and Chapter 17 of the International Building Code, the Consultant shall be responsible for the coordination of all special inspections during the construction phase of the project.

Bulletin 03-5 can be found at:

https://www.nj.gov/dca/codes/publications/pdf_bulletins/b_03_5.pdf

a. Definition

Special inspections are defined as an independent verification by a certified special inspector for **Class I buildings and smoke control systems in any class building**. The special inspector is to be independent from the Contractor and responsible to the Consultant so that there is no possible conflict of interest.

Special inspectors shall be certified in accordance with the requirements in the NJUCC.

b. Responsibilities

The Consultant shall submit with the permit application, a list of special inspections and the agencies or special inspectors that will be responsible to carry out the inspections required for the project. The list shall be a separate document, on letter head, signed and sealed.

B. OTHER REGULATORY AGENCY PERMITS, CERTIFICATES AND APPROVALS

The Consultant shall identify and obtain all other State Regulatory Agency permits, certificates, and approvals that will govern and affect the work described in this Scope of Work. An itemized list of these permits, certificates, and approvals shall be included with the Consultant's Technical Proposal and the total amount of the application fees should be entered in the Fee Proposal line item entitled, **"Plan Review and Permit Fee Allowance."**

The Consultant may refer to the DPMC "Procedures for Architects and Engineers Manual," Paragraph "**9. REGULATORY AGENCY APPROVALS"** which presents a compendium of State permits, certificates, and approvals that may be required for this project.

The Consultant shall determine the appropriate phase of the project to submit the permit application(s) in order to meet the approved project milestone dates.

Where reference to an established industry standard is made, it shall be understood to mean the most recent edition of the standard unless otherwise noted. If an industry standard is found to be revoked, or should the standard have undergone substantial change or revision from the time that the Scope of Work was developed, the Consultant shall comply with the most recent edition of the standard.

IX. ENERGY REBATE AND INCENTIVE PROGRAMS

The Consultant shall review any and all programs on the State and Federal level to determine if any proposed upgrades to the mechanical and/or electrical equipment and systems for this project qualify for approved rebates and incentives.

The Consultant shall review the programs available on the "New Jersey's Clean Energy Program" website at: http://www.njcleanenergy.com as well as federal websites and New Jersey electric and gas utility websites to determine if and how they can be applied to this project.

The Consultant shall identify all applicable rebates and incentives in their technical proposal and throughout the design phase.

The Consultant shall be responsible to complete the appropriate registration forms and applications, provide any applicable worksheets, manufacturer's specification sheets, calculations, attend meetings, and participate in all activities with designated representatives of the programs and utility companies to obtain the entitled financial incentives and rebates for this project.

All costs associated with this work shall be estimated by the Consultant and the amount included in the base bid of its fee proposal.

X. ALLOWANCES

A. PLAN REVIEW AND PERMIT FEE ALLOWANCE

The Consultant shall obtain and pay for all of the project permits in accordance with the guidelines identified below.

1. Permits

The Consultant shall determine the various permits, certificates, and approvals required to complete this project.

2. Permit Costs

The Consultant shall estimate the application fee costs for all of the required project permits, certificates, and approvals (excluding the NJUCC permit) and include that amount in its fee proposal line item entitled **"Plan Review and Permit Fee Allowance."** A breakdown of each permit and application fee shall be attached to the fee proposal for reference.

NOTE: The NJUCC permit is excluded since it will be paid for by the State.

3. Applications

The Consultant shall complete and submit all permit applications to the appropriate permitting authorities and the costs shall be paid from the Consultant's permit fee allowance. A copy of the application(s) and the original permit(s) obtained by the Consultant shall be given to the DPMC Project Manager for distribution during construction.

4. Consultant Fee

The Consultant shall determine what is required to complete and submit the permit applications, obtain supporting documentation, attend meetings, etc., and include the total cost in the base bid of its fee proposal under the "Permit Phase" column.

Any funds remaining in the permit allowance will be returned to the State at the close of the project.

XI. SOW SIGNATURE APPROVAL SHEET

This Scope of Work shall not be considered a valid document unless all signatures appear in each designated area below.

The client agency approval signature on this page indicates that they have reviewed the design criteria and construction schedule described in this project Scope of Work (including the subsequent contract deliverables and exhibits) and verifies that the work will not conflict with the existing or future construction activities of other projects at the site.

SOW APPROVED BY: James Wright 7/25/2025

JAMES WRIGHT, MANAGER DATE
DPMC PROJECT PLANNING & INITIATION

SOW APPROVED BY: Sgt. T. Praschil #6423 07/25/2025

SGT. TIMOTHY PRASCHIL, PROJECT MANAGER DATE
NEW JERSEY STATE POLICE

SOW APPROVED BY: Youstina Mansy 07/30/2025

YOUSTINA MANSY, PROJECT MANAGER DATE
DPMC PROJECT MANAGEMENT GROUP

SOW APPROVED BY: Jeanette M Barnard 8.13.25

JEANETTE M. BARNARD, DEPUTY DIRECTOR DATE
DIV PROPERTY MGT & CONSTRUCTION

XII. CONTRACT DELIVERABLES

The following are checklists listing the Contract Deliverables that are required at the completion of each phase of this project. The Consultant shall refer to the DPMC publication entitled "Procedures for Architects and Engineers," 3.0 Edition, dated September 2022 available at https://www.nj.gov/treasury/dpmc/Assets/Files/ProceduresforArchitectsandEngineers.pdf for a detailed description of the deliverables required for each submission item listed. References to the applicable paragraphs of the "Procedures for Architects and Engineers" are provided.

Note that the Deliverables Checklist may include submission items that are "S.O.W. Specific Requirements". These requirements will be defined in the project specific scope of work and included on the deliverables checklist.

This project includes the following phases with the deliverables noted as "Required by S.O.W" on the Deliverables Checklist:

DESIGN DEVELOPMENT PHASE;

FINAL DESIGN PHASE;

PERMIT APPLICATION PHASE;

BIDDING AND CONTRACT AWARD;

CONSTRUCTION PHASE; and

PROJECT CLOSE-OUT PHASE

XIII. EXHIBITS

A. SAMPLE PROJECT SCHEDULE FORMAT
B. PROJECT SITE LOCATION MAP
C. EVALUATION REPORT

END OF SCOPE OF WORK

DPMC Project No.: S0676-00

Deliverables Checklist
Design Development Phase

A/E Name: _____

A/E Manual Reference	Submission Item	Required by S.O.W.		Previously Submitted		Enclosed	
		Yes	No	Yes	No	Yes	No
14.4.1.	A/E Statement of Site Visit						
14.4.2.	Narrative Description of Project						
14.4.3.	Building Code Information Questionnaire						
14.4.4.	Space Analysis						
14.4.5.	Special Features						
14.4.6.	Catalog Cuts						
14.4.7.	Site Evaluation						
14.4.8.	Subsurface Investigation						
14.4.9.	Surveys						
14.4.10.	Arts Inclusion						
14.4.11.	Design Rendering						
14.4.12.	Regulatory Approvals						
14.4.13.	Utility Availability						
14.4.14.	Drawings (6 Sets)						
14.4.15.	Specifications (6 Sets)						
14.4.16.	Current Working Estimate/Cost Analysis in CSI Format						
14.4.17.	Project Schedule						
14.4.18.	Formal Presentation						
14.4.19.	Plan Review/Scope of Work Compliance Statement						
14.4.20.	Design development Phase Deliverables Checklist						
S.O.W. Reference	**S.O.W. Specific Requirements**						

This checklist shall be completed by the Design Consultant and included as the cover sheet of this submission to document to the DPMC the status of all the deliverables required by the project specific Scope of Work.

_____ _____

Consultant Signature Date

DPMC Project No.: S0676-00

Deliverables Checklist
Final Design Phase

A/E Name: _____

A/E Manual Reference	Submission Item	Required by S.O.W.		Previously Submitted		Enclosed	
		Yes	No	Yes	No	Yes	No
15.4.1.	A/E Statement of Site Visit						
15.4.2.	Narrative Description of Project						
15.4.3.	Building Code Information Questionnaire						
15.4.4.	Space Analysis						
15.4.5.	Special Features						
15.4.6.	Catalog Cuts						
15.4.7.	Site Evaluation						
15.4.8.	Subsurface Investigation						
15.4.9.	Surveys						
15.4.10.	Arts Inclusion						
15.4.11.	Design Rendering						
15.4.12.	Regulatory Approvals						
15.4.13.	Utility Availability						
15.4.14.	Drawings (6 Sets)						
15.4.15.	Specifications (6 Sets)						
15.4.16.	Current Working Estimate/Cost Analysis in CSI Format						
15.4.17.	Project Schedule						
15.4.18.	Formal Presentation						
15.4.19.	Plan Review/Scope of Work Compliance Statement						
15.4.20.	Final Design Phase Deliverables Checklist						
S.O.W. Reference	**S.O.W. Specific Requirements**						

This checklist shall be completed by the Design Consultant and included as the cover sheet of this submission to document to the DPMC the status of all the deliverables required by the project specific Scope of Work.

_____ _____

Consultant Signature Date

DPMC Project No.: S0676-00

Deliverables Checklist
Permit Application Phase

A/E Name: _____

A/E Manual Reference	Submission Item	Required by S.O.W.		Previously Submitted		Enclosed	
		Yes	No	Yes	No	Yes	No
16.1.	N.J. UCC Permit Application						
16.4.	Drawings, Signed and Sealed (6 Sets)						
16.5.	Specifications, Signed and Sealed (6 Sets)						
16.6.	Current Working Estimate/Cost Analysis in CI Format						
16.7.	Project Schedule						
16.8.	Plan Review/Scope of Work Compliance Statement						
16.9.	Permit Application Phase Deliverables Checklist						
S.O.W. Reference	**S.O.W. Specific Requirements**						

This checklist shall be completed by the Design Consultant and included as the cover sheet of this submission to document to the DPMC Project Manager the status of all the deliverables required by the project specific Scope of Work.

_____ _____

Consultant Signature Date

DPMC Project No.: S0676-00

Deliverables Checklist
Bidding and Contract Award Phase

A/E Name: _____

A/E Manual Reference	Submission Item	Required by S.O.W.		Previously Submitted		Enclosed	
		Yes	No	Yes	No	Yes	No
17.1.1.	Notice of Advertising						
17.1.2.	Bid Proposal Form						
17.1.3.	Bid Clearance Form						
17.1.4.	Drawings (6 Sets)						
17.1.5.	Specifications (6 Sets)						
17.1.6.	Construction Schedule						
17.3	Pre-Bid Conference/Mandatory Site Visit						
17.3.1.	Meeting Minutes						
17.4	Bulletins						
17.5	Post Bid Meeting						
17.6.	Contract Award "Letter of Recommendation"						
17.8.	Bid Protests - Hearings						
17.9.	Bidding and Contract Award Phase Deliverables Checklist						
S.O.W. Reference	**S.O.W. Specific Requirements**						

This checklist shall be completed by the Design Consultant and included as the cover sheet of this submission to document to the DPMC the status of all the deliverables required by the project specific Scope of Work.

_____ _____

Consultant Signature Date

DPMC Project No.: S0676-00

Deliverables Checklist
Construction Phase

A/E Name: _____

A/E Manual Reference	Submission Item	Required by S.O.W.		Previously Submitted		Enclosed	
		Yes	No	Yes	No	Yes	No
18.2.	Pre-Construction Meeting						
18.3.	Submittal Log						
18.4.	Construction Schedule						
18.5.	Project Progress Meetings						
18.7.	Contractor's Invoicing and Payment Process						
18.8.	Contractor Submittals						
18.10.	Testing						
18.11.	Shop Drawings (6 Sets)						
18.12.	As-Built & Record Set Drawings (6 Sets)						
18.13.	Change Orders						
18.14.	Construction Photographs						
18.15.	Field Observations						
18.17.	Construction Phase Deliverables Checklist						
S.O.W. Reference	**S.O.W. Specific Requirements**						

This checklist shall be completed by the Design Consultant and included as the cover sheet of this submission to document to the DPMC the status of all the deliverables required by the project specific Scope of Work.

_____ _____

Consultant Signature Date

DPMC Project No.: S0676-00

Deliverables Checklist
Project Close-Out Phase

A/E Name: _____

A/E Manual Reference	Submission Item	Required by S.O.W.		Previously Submitted		Enclosed	
		Yes	No	Yes	No	Yes	No
19.3.	Development of Punch List and Inspection Reports						
19.5.	Determination of Substantial Completion						
19.6.	Correction/Completion of Punch List						
19.7.	Submission of Close-Out Documentation						
19.7.1.	As-Built and Record Sets of Drawing (6 Sets)						
19.8.	Final Payment						
19.9.1.	Contractors Final Payment						
19.9.2.	A/E's Final Payment						
19.10.	Project Close-Out Phase Deliverables Checklist						
S.O.W. Reference	**S.O.W. Specific Requirements**						

This checklist shall be completed by the Design Consultant and included as the cover sheet of this submission to document to the DPMC the status of all the deliverables required by the project specific Scope of Work.

_____ _____

Consultant Signature Date

February 7, 1997
Rev.: January 29, 2002

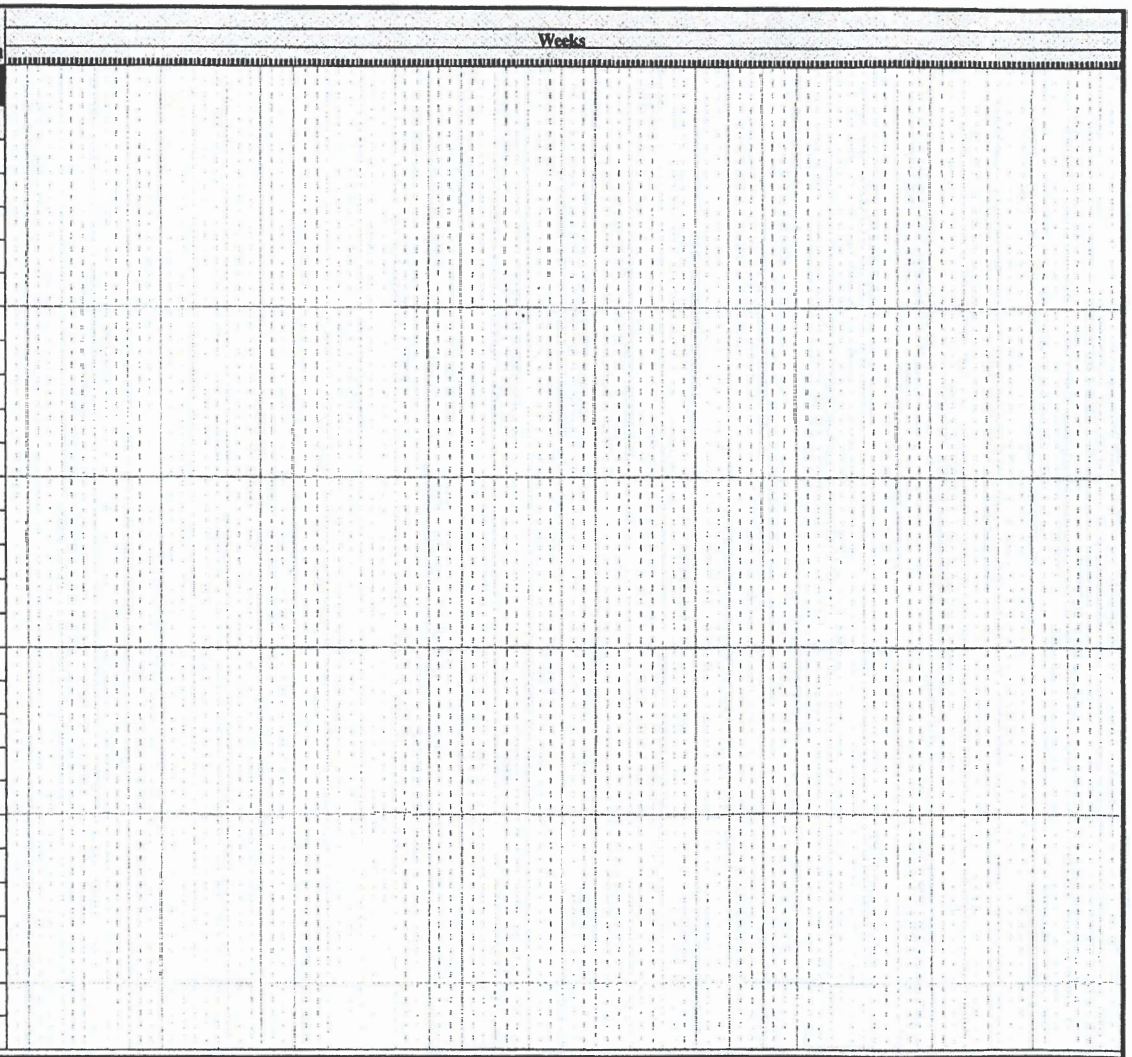
Responsible Group Code Table

The codes below are used in the schedule field "GRP" that identifies the group responsible for the activity. The table consists of groups in the Division of Property Management & Construction (DPMC), as well as groups outside of the DPMC that have responsibility for specific activities on a project that could delay the project if not completed in the time specified. For reporting purposes, the groups within the DPMC have been defined to the supervisory level of management (i.e., third level of management, the level below the Associate Director) to identify the "functional group" responsible for the activity.

CODE	DESCRIPTION	REPORTS TO ASSOCIATE DIRECTOR OF:
CM	Contract Management Group	Contract Management
CA	Client Agency	N/A
CSP	Consultant Selection and Prequalification Group	Technical Services
A/E	Architect/Engineer	N/A
PR	Plan Review Group	Technical Services
CP	Construction Procurement	Planning & Administration
CON	Construction Contractor	N/A
FM	Financial Management Group	Planning & Administration
OEU	Office of Energy and Utility Management	N/A
PD	Project Development Group	Planning & Administration

EXHIBIT 'A'

Activity ID	Description	Rspn
<PROJ>		
Design		
CV3001	Schedule/Conduct Predesign/Project Kick-Off Mtg.	CM
CV3020	Prepare Program Phase Submittal	AE
CV3021	Distribute Program Submittal for Review	CM
CV3027	Prepare & Submit Project Cost Analysis (DPMC-38)	CM
CV3022	Review & Approve Program Submittal	CA
CV3023	Review & Approve Program Submittal	PR
CV3024	Review & Approve Program Submittal	CM
CV3025	Consolidate & Return Program Submittal Comments	CM
CV3030	Prepare Schematic Phase Submittal	AE
CV3031	Distribute Schematic Submittal for Review	CM
CV3037	Prepare & Submit Project Cost Analysis (DPMC-38)	CM
CV3032	Review & Approve Schematic Submittal	CA
CV3033	Review & Approve Schematic Submittal	PR
CV3034	Review & Approve Schematic Submittal	CM
CV3035	Consolidate & Return Schematic Submittal Comment	CM
CV3040	Prepare Design Development Phase Submittal	AE
CV3041	Distribute D. D. Submittal for Review	CM
CV3047	Prepare & Submit Project Cost Analysis (DPMC-38)	CM
CV3042	Review & Approve Design Development Submittal	CA
CV3043	Review & Approve Design Development Submittal	PR
CV3044	Review & Approve Design Development Submittal	CM
CV3045	Consolidate & Return D.D. Submittal Comments	CM
CV3050	Prepare Final Design Phase Submittal	AE
CV3051	Distribute Final Design Submittal for Review	CM
CV3052	Review & Approve Final Design Submittal	CA
CV3053	Review & Approve Final Design Submittal	PR
CV3054	Review Final Design Submitl for Constructability	OCS



NOTE:
Refer to section "IV Project Schedule" of the Scope of Work for contract phase durations.

DBCA - TEST

Sheet 1 of 3

Bureau of Design & Construction Services

EXHIBIT 'A'

Activity ID	Description	Rspn	Weeks
CV3055	Review & Approve Final Design Submittal	CM	
CV3056	Consolidate & Return Final Design Comments	CM	
CV3060	Prepare & Submit Permit Application Documents	AE	
CV3068	Prepare & Submit Bidding Cost Analysis (DPMC-38)	CM	
Plan Review-Permit Acquisition			
CV4001	Review Constr. Documents & Secure UCC Permit	PR	
CV4010	Provide Funding for Construction Contracts	CA	
CV4020	Secure Bid Clearance	CM	
Advertise-Bid-Award			
CV5001	Advertise Project & Bid Construction Contracts	CP	
CV5010	Open Construction Bids	CP	
CV5011	Evaluate Bids & Prep. Recommendation for Award	CM	
CV5012	Evaluate Bids & Prep. Recommendation for Award	AE	
CV5014	Complete Recommendation for Award	CP	
CV5020	Award Construction Contracts/Issue NTP	CP	
Construction			
CV6000	Project Construction Start/Issue NTP	CM	
CV6001	Contract Start/Contract Work (25%) Complete	CON	
CV6002	Preconstruction Meeting	CM	
CV6003	Begin Preconstruction Submittals	CON	
CV6004	Longest Lead Procurement Item Ordered	CON	
CV6005	Lead Time for Longest Lead Procurement Item	CON	
CV6006	Prepare & Submit Shop Drawings	CON	
CV6007	Complete Construction Submittals	CON	
CV6011	Roughing Work Start	CON	
CV6012	Perform Roughing Work	CON	
CV6010	Contract Work (50%+) Complete	CON	
CV6013	Longest Lead Procurement Item Delivered	CON	
CV6020	Contract Work (75%) Complete	CON	

NOTE:
Refer to section "IV Project Schedule" of the Scope of Work for contract phase durations.

DBCA - TEST

Sheet 2 of 3

Bureau of Design & Construction Services

EXHIBIT 'A'

Activity ID	Description	Rspn	Weeks
CV6014	Roughing Work Complete	CON	
CV6021	Interior Finishes Start	CON	
CV6022	Install Interior Finishes	CON	
CV6030	Contract Work to Substantial Completion	CON	
CV6031	Substantial Completion Declared	CM	
CV6075	Complete Deferred Punch List/Seasonal Activities	CON	
CV6079	Project Construction Complete	CM	
CV6080	Close Out Construction Contracts	CM	
CV6089	Construction Contracts Complete	CM	
CV6090	Close Out A/E Contract	CM	
CV6092	Project Completion Declared	CM	

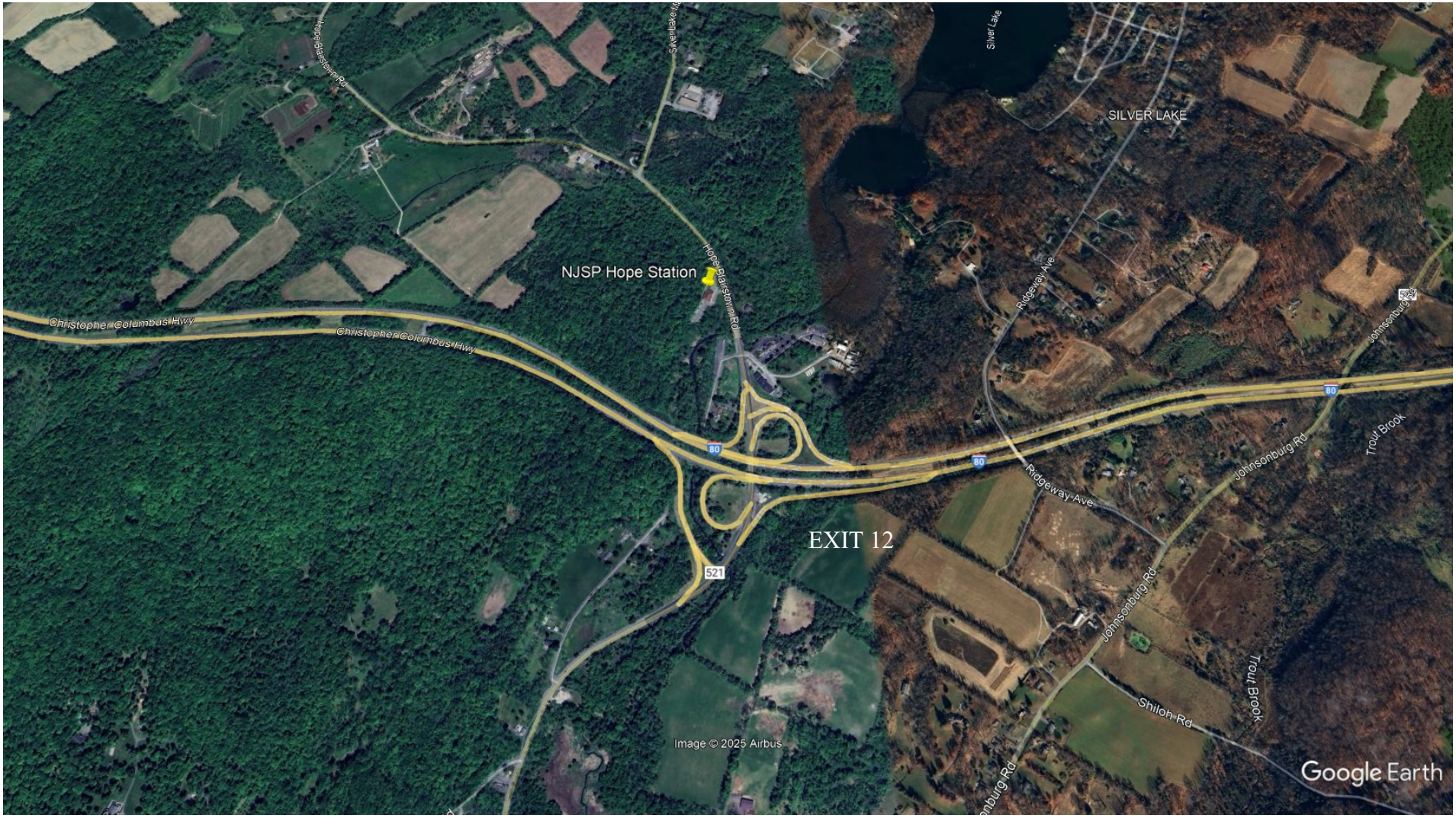
NOTE:
Refer to section "IV Project Schedule" of the Scope of Work for contract phase durations.

DBCA - TEST

Sheet 3 of 3

Bureau of Design & Construction Services

EXHIBIT 'A'



Project Site Location Map

New Jersey State Police Hope Station

EXHIBIT ‘B’

MOTT MACDONALD

New Jersey State Police - Hope Station Generator Replacement Evaluation Report

November 2024

EXHIBIT 'C'

Mott MacDonald
111 Wood Avenue South
Iselin
NJ 08830-4112
United States of America

T +1 (800) 832 3272
mottmac.com

New Jersey State Police

New Jersey State Police - Hope Station Generator Replacement Evaluation Report

November 2024

EXHIBIT 'C'

Issue and revision record

Revision	Date	Originator	Checker	Approver	Description
0	11/20/24	E. Conticchio	I. Bondar	I. Bondar	Preliminary Engineering Evaluation

Document reference: 507110919-001

Information class: Standard

EXHIBIT 'C'

Contents

EXHIBIT 'C'

Executive summary

The New Jersey State Police (NJSP from herein) has contracted Mott MacDonald to conduct an engineering assessment for the replacement of the existing generator at NJSP Hope Station. A site survey was conducted by Mott MacDonald on October 25, 2024 and electrical distribution information was collected at this time. The following report outlines the existing generator conditions, design discussion, and recommendations for the replacement of the existing generator. This report is not to be used for construction purposes. A detailed design process based on the information within this document and follow-up site surveys by all required disciplines is required to produce construction documentation.

1 Existing Conditions

The existing permanent diesel generator is located on the northwest corner of the building, manufactured by Cumins. It has a belly tank and a weatherproof enclosure and sits on a small concrete pad. NJSP has reported that this generator is no longer functioning.

As the existing permanent diesel generator does not function, the NJSP has installed a temporary generator setup to provide power for various life safety loads, among other loads. The temporary generator is a Generac MMG75D diesel genset mounted on a trailer on the northeast corner of the building. Refer to photos below for existing conditions and appendix B for a sketch of the site showing the locations of the generators.

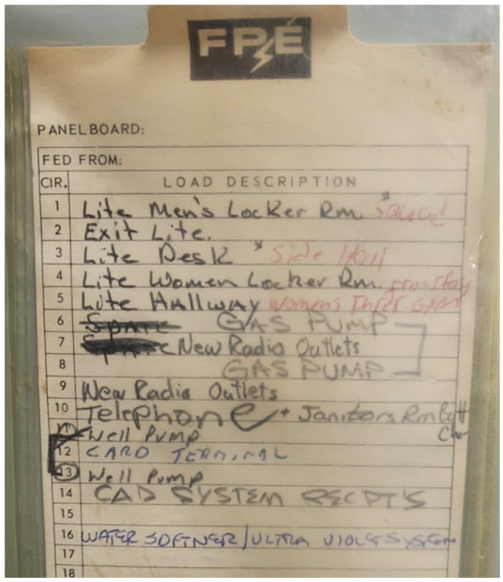
Existing Permanent Generator

Temporary Generator

The transfer switch is located in the electrical room and is fed from a disconnect switch in the room adjacent to the electrical room which is subsequently fed by the temporary generator. The transfer switch feeds power panelboard “EM Panel” which supplies power to life safety and

EXHIBIT 'C'

critical loads. Refer to photo below for existing conditions and appendix B for a sketch of the site showing the locations of the switch and emergency panel schedule.



Transfer Switch, Disconnect Switch and EM Panel Schedule

The service for the station enters the electrical room and feeds the Main Distribution Panelboard (MDP from herein) which sits next to a CT Cabinet and meter. There are three branch circuit panels (including EM Panel) in the electrical room as well. All panel ratings as follows:

- MDP 208/120V, 3 Phase, 4 Wire, 600A
- Power Panel 208/120V, 3 Phase, 4 Wire, 225A via circuit breaker in MDP

EXHIBIT 'C'

- Lighting Panel 208/120V, 3 Phase, 4 Wire, 225A via circuit breaker in MDP
- EM Panel 120/240V, 1 Phase, 3 Wire, 100A via circuit breaker in Power Panel

EXHIBIT 'C'

2 Design Discussion

The intent of this portion is to discuss the work required to remove the existing generator and replace it with a unit sized for the entire station.

2.1 Generator

Demolition Work

The existing generators will be disconnected and removed. There should be no concrete removal involved. The existing transfer switch in the electrical room and existing disconnect switch in the room adjacent to the electrical room will be disconnected and removed as well.

All existing power wiring between the existing generators, existing transfer switch, disconnect switch and existing EM Panel will be disconnected and removed.

All conduit located exterior to the building from the generator to the building will be disconnected and removed. All penetration points into the building shall be capped.

Installation Work

First thing required will be a new concrete pad in the same location as the existing temporary generator. After the pad is poured, a new diesel generator will be installed on the pad. The proposed generator will be an emergency diesel generator sized between 250kW and 350kW with a subbase belly tank. Refer to Appendix A for cut sheets related the new generator. The generator shall be capable of providing power within 10 seconds of utility loss.

Access panels for the new generator will require 36” of clearance. The distance between the new generator and the building wall will require 18” of clearance. The approximate overall dimensions of the new generator with its enclosure 162”L x 52”W x 74”H. This is based on a 250kW generator and is subject to change during the design process.

New conduit will be provided from the generator to the building and new penetrations will be required. These penetrations will be fire-stopped.

A new ATS will be provided in the room directly adjacent to the electrical room. The preliminary ATS is a s ervice entrance unit with a NEMA 12 enclosure. Refer to Appendix A for cut sheets related to the new ATS. Approximate dimensions of the new ATS are 37”W x 72”H x 17”D. This is based on a 600A ATS and is subject to change during the design process. The service feeder will be intercepted at the entrance of the electrical room and rerouted to the ATS. Likewise, new conduit and wiring will be provided between the generator and the ATS. Lastly, conduit and wiring will be provided between the ATS and existing MDP, providing power for the entire station.

Conduits are to be installed first with pull wires. Once all conduits are installed, the wiring can be pulled through to the new equipment and be connected for a complete standby system. Wiring will be extended, type to match existing, where required. Control wiring will be provided as new between the generator set and the ATS utilizing existing and new conduit. The generator set and enclosure will be grounded. This method will reduce the station’s downtime.

2.2 Station Downtime

Due to the nature of these proposed solutions, the building will experience some mandatory downtime. With there being work involving the existing service feeders, the service disconnect will have to be de-energized temporarily to allow for safe work inside the building. At a bare minimum, the generator and ATS should be brought to the site, tested, and approved before any work is done with the existing service feeders. The ATS should be installed first and the normal connection should be made so as to provide power to the building with minimum downtime. Afterwards, the demolition of the existing generator and installation of new generator can begin while normal power is available to the building. There will be a period of time when the building will not have standby power. The estimated downtime for normal power is approximately one to two days. The estimated downtime for standby power is approximately one week.

A. Cut Sheets

EXHIBIT 'C'

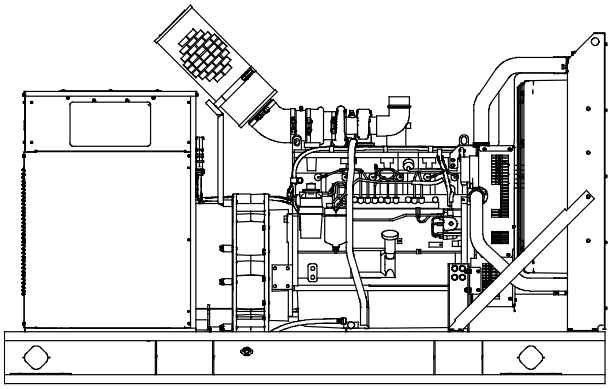
Industrial Generator Set - 250REOZJE

208-600 V **Diesel**

Tier 3 EPA-Certified for Stationary Emergency Applications

Ratings Range

		60 Hz
Standby:	**kW**	230-255
	kVA	230-319
Prime:	**kW**	210-230
	kVA	210-288



Standard Features

- Rehlko provides one-source responsibility for the generating system and accessories.
- Approved for use with certified renewable Hydrotreated Vegetable Oil (HVO) / Renewable Diesel (RD) fuels compliant with EN15940 / ASTM D975.
- The generator set and its components are prototype-tested, factory-built, and production-tested.
- The 60 Hz generator set offers a UL 2200 listing.
- The generator set accepts rated load in one step.
- The 60 Hz emergency generator set meets NFPA 110, Level 1, when equipped with the necessary accessories and installed per NFPA standards.
- A one-year limited warranty covers all generator set systems and components. Two- and five-year extended limited warranties are also available.
- Alternator features:
  - The unique Fast-Response® II excitation system delivers excellent voltage response and short-circuit capability using a permanent magnet (PM)-excited alternator.
  - The brushless, rotating-field alternator has broadrange reconnectability.
- Other features:
  - Rehlko designed controllers for one-source system integration and remote communication. See Controllers on page 3.
  - The low coolant level shutdown prevents overheating (standard on radiator models only).
  - Integral vibration isolation eliminates the need for under-unit vibration spring isolators.
- Mount up to four circuit breakers to allow circuit protection of selected priority loads.

Generator Set Ratings

				130°C Rise Standby Rating		105°C Rise Prime Rating	
Alternator	**Voltage**	**Ph**	**Hz**	**kW/kVA**	**Amps**	**kW/kVA**	**Amps**
4UA10	120/208	3	60	250/313	867	225/281	781
	127/220	3	60	250/313	820	225/281	738
	120/240	3	60	250/313	752	225/281	677
	139/240	3	60	250/313	752	225/281	677
	220/380	3	60	250/313	475	225/281	427
	240/416	3	60	250/313	434	225/281	390
	277/480	3	60	250/313	376	225/281	338
	347/600	3	60	250/313	301	225/281	271
4UA13	120/208	3	60	255/319	885	230/288	798
	127/220	3	60	255/319	837	230/288	754
	120/240	3	60	255/319	767	230/288	692
	120/240	1	60	230/230	958	210/210	875
	139/240	3	60	255/319	767	230/288	692
	220/380	3	60	255/319	484	230/288	437
	240/416	3	60	255/319	442	230/288	399
	277/480	3	60	255/319	383	230/288	346
	347/600	3	60	255/319	307	230/288	277

RATINGS: All three-phase units are rated at 0.8 power factor. All single-phase units are rated at 1.0 power factor. ***Standby Ratings:*** The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. ***Prime Power Ratings:*** At varying load, the number of generator set operating hours is unlimited. A 10% overload capacity is available for one hour in twelve. Ratings are in accordance with ISO-8528-1 and ISO-3046-1. For limited running time and continuous ratings, consult the factory. Obtain technical information bulletin (TIB-101) for ratings guidelines, complete ratings definitions, and site condition derates. The generator set manufacturer reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

Discovery Energy, LLC
200 Twin Oaks Road, Kohler, WI 53044 USA
For the nearest sales and service outlet in the US and Canada, phone 1-800-544-2444 - powersystems.rehlko.com

EXHIBIT 'C'

Alternator Specifications

Specifications		Alternator
Type		4-Pole, Rotating-Field
Exciter type		Brushless, Permanent-Magnet
Leads: quantity, type		12, Reconnectable
Voltage regulator		Solid State, Volts/Hz
Insulation:		NEMA MG1
Material		Class H
Temperature rise		130°C Standby
Bearing: quantity, type		1, Sealed
Coupling		Flexible Disc
Amortisseur windings		Full
Voltage regulation, no-load to full-load		Controller Dependent
One-step load acceptance		100% of Rating
Unbalanced load capability		100% of Rated Standby Current
Peak motor starting kVA:		(35% dip for voltages below)
480 V	4UA10 (12 lead)	785
480 V	4UA13 (12 lead)	960

- NEMA MG1, IEEE, and ANSI standards compliance for temperature rise and motor starting.
- Sustained short-circuit current of up to 300% of the rated current for up to 10 seconds.
- Sustained short-circuit current enabling downstream circuit breakers to trip without collapsing the alternator field.
- Self-ventilated and dripproof construction.
- Windings are vacuum-impregnated with epoxy varnish for dependability and long life.
- Superior voltage waveform from a two-thirds pitch stator and skewed rotor.
- Fast-Response® II brushless alternator with brushless exciter for excellent load response.

Application Data

Engine

Engine Specification	
Engine manufacturer	John Deere
Engine model	6090HF484B
Engine type	4-Cycle, Turbocharged, Charge Air-Cooled
Cylinder arrangement	6, Inline
Displacement, L (cu. in.)	9.0 (548)
Bore and stroke, mm (in.)	118.4 x 136 (4.66 x 5.35)
Compression ratio	16.0:1
Piston speed, m/min. (ft./min.)	457 (1500)
Main bearings: quantity, type	7, Replaceable Insert
Rated rpm	1800
Max. power at rated rpm, kWm (BHP)	287 (385)
Cylinder head material	Cast Iron
Crankshaft material	Forged Steel
Valve material	
Intake	Chromium-Silicone Steel
Exhaust	Stainless Steel
Governor: type, make/model	JDEC Electronic L14 Denso HP4
Frequency regulation, no-load to full-load	Isochronous
Frequency regulation, steady state	±0.25%
Frequency	Fixed
Air cleaner type, all models	Dry

Exhaust

Exhaust System	
Exhaust manifold type	Dry
Exhaust flow at rated kW, m^3/min. (cfm)	54.1 (1911)
Exhaust temperature at rated kW, dry exhaust, °C (°F)	625 (1157)
Maximum allowable back pressure, kPa (in. Hg)	Min. 0 (0) Max. 7.5 (2.2)
Engine exhaust outlet size, mm (in.)	98 (3.86)

Engine Electrical

Engine Electrical System	
Battery charging alternator:	24 Volt
Ground (negative/positive)	Negative
Volts (DC)	24
Ampere rating	60
Starter motor rated voltage (DC)	24
Battery, recommended cold cranking amps (CCA):	
Qty., CCA rating each	Two, 925
Battery voltage (DC)	12

Fuel

Fuel System	
Fuel supply line, min. ID, mm (in.)	11 (0.44)
Fuel return line, min. ID, mm (in.)	6.0 (0.25)
Max. lift, fuel pump: type, m (ft.)	Electronic, 3 (10)
Max. fuel flow, Lph (gph)	240 (63.4)
Max. return line restriction, kPa (in. Hg)	20 (5.9)
Fuel prime pump	Electronic
Fuel filter	
Secondary	2 Microns @ 98% Efficiency
Primary	10 Microns
Water Separator	Yes
Recommended fuel	#2 Diesel / HVO / RD

Lubrication

Lubricating System	
Type	Full Pressure
Oil pan capacity, L (qt.) §	32.5 (34.4)
Oil pan capacity with filter, L (qt.) §	33.4 (35.3)
Oil filter: quantity, type §	1, Cartridge
Oil cooler	Water-Cooled

§ Rehlko recommends the use of Rehlko Genuine oil and filters.

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EXHIBIT 'C'

Application Data

Cooling

Radiator System	
Ambient temperature, °C (°F)*	50 (122)
Engine jacket water capacity, L (gal.)	16 (4.25)
Radiator system capacity, including engine, L (gal.)	36 (9.5)
Engine jacket water flow, Lpm (gpm)	265 (70)
Heat rejected to cooling water at rated kW, dry exhaust, kW (Btu/min.)	97 (5521)
Heat rejected to air charge cooler at rated kW, dry exhaust, kW (Btu/min.)	70.5 (4013)
Water pump type	Centrifugal
Fan diameter, including blades, mm (in.)	863.6 (34.0)
Fan, kWm (HP)	9.0 (12.1)
Max. restriction of cooling air, intake and discharge side of radiator, kPa (in. H_2O)	0.125 (0.5)

* Enclosure with internal silencer reduces ambient temperature capability by 5°C (9°F).

Operation Requirements

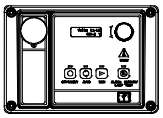
Air Requirements	
Radiator-cooled cooling air, m^3/min. (scfm)†	396.4 (14000)
Combustion air, m^3/min. (cfm)	21.8 (770)
Heat rejected to ambient air:	
Engine, kW (Btu/min.)	53.8 (3060)
Alternator, kW (Btu/min.)	20.6 (1170)

† Air density = 1.20 kg/m^3 (0.075 lbm/ft^3)

Fuel Consumption‡	
Diesel, Lph (gph) at % load	**Standby Rating**
100%	66.5 (17.6)
75%	50.4 (13.3)
50%	35.0 (9.2)
25%	20.5 (5.4)
Diesel, Lph (gph) at % load	**Prime Rating**
100%	59.1 (15.6)
75%	45.3 (12.0)
50%	31.6 (8.3)
25%	18.4 (4.9)

‡ Volumetric Fuel consumption is up to 4% higher when using HVO/RD than #2 ULSD.

Controllers



APM402 Controller

Provides advanced control, system monitoring, and system diagnostics for optimum performance and compatibility.

- Digital display and menu control provide easy local data access
- Measurements are selectable in metric or English units
- Remote communication thru a PC via network or serial configuration
- Controller supports Modbus® protocol
- Integrated hybrid voltage regulator with ±0.5% regulation
- Built-in alternator thermal overload protection
- NFPA 110 Level 1 capability

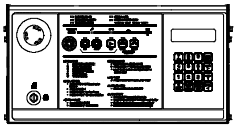
Refer to G6-161 for additional controller features and accessories.

APM603 Controller

Provides advanced control, system monitoring, and system diagnostics for optimum performance and compatibility.

- 7-inch graphic display with touch screen and menu control provides easy local data access
- Measurements are selectable in metric or English units
- Paralleling capability to control up to 8 generators on an isolated bus with first-on logic, synchronizer, kW and kVAR load sharing, and protective relays
  Note: Parallel with other APM603 controllers only
- Generator management to turn paralleled generators off and on as required by load demand
- Load management to connect and disconnect loads as required
- Controller supports Modbus® RTU, Modbus® TCP, SNMP and BACnet®
- Integrated voltage regulator with ±0.25% regulation
- Built-in alternator thermal overload protection
- UL-listed overcurrent protective device
- NFPA 110 Level 1 capability

Refer to G6-162 for additional controller features and accessories.



Decision-Maker® 6000 Paralleling Controller

Provides advanced control, system monitoring, and system diagnostics with remote monitoring capabilities for paralleling multiple generator sets.

- Paralleling capability to control up to 8 generators on an isolated bus with first-on logic, synchronizer, kW and kVAR load sharing, and protective relays
  Note: Parallel with other Decision-Maker® 6000 controllers only
- Digital display and keypad provide easy local data access
- Measurements are selectable in metric or English units
- Remote communication thru a PC via network or modem configuration
- Controller supports Modbus® protocol
- Integrated voltage regulator with ±0.25% regulation
- Built-in alternator thermal overload protection
- NFPA 110 Level 1 capability

Refer to G6-107 for additional controller features and accessories.

Modbus® is a registered trademark of Schneider Electric.
BACnet® is a registered trademark of ASHRAE.

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EXHIBIT 'C'

Industrial Generator Set - 250REOZJE

208-600 V **Diesel**

Standard Features

- Alternator Protection
- Battery Rack and Cables
- Customer Connection
  (standard with Decision-Maker® 6000 controller only)
- Local Emergency Stop Switch
- Oil Drain Extension
- Operation and Installation Literature

Available Options

Circuit Breakers Type
- ❑ Magnetic Trip
- ❑ Thermal Magnetic Trip
- ❑ Electronic Trip (LI)
- ❑ Electronic Trip with Short Time (LSI)
- ❑ Electronic Trip with Ground Fault (LSIG)

Rating
- ❑ 80%
- ❑ 100%

Operation
- ❑ Manual
- ❑ Electrically Operated (for paralleling)

Circuit Breaker Mounting
- ❑ Generator Mounted
- ❑ Remote Mounted
- ❑ Bus Bar (for remote mounted breakers)

Enclosures for Remote Mounted Circuit Breakers
- ❑ NEMA 1
- ❑ NEMA 3R

Approvals and Listings
- ❑ CSA Certified
- ❑ HCAI Pre-Approval
- ❑ Hurricane Rated Enclosure
- ❑ IBC Seismic Certification
- ❑ UL 2200 Listing

Enclosed Unit
- ❑ Sound Enclosure and Subbase Fuel Tank Packages
- ❑ Weather Enclosure and Subbase Fuel Tank Packages

Open Unit
- ❑ Exhaust Silencer, Critical (kit: PA-354809)
- ❑ Flexible Exhaust Connector, Stainless Steel

Fuel System
- ❑ Flexible Fuel Lines
- ❑ Fuel Pressure Gauge
- ❑ Subbase Fuel Tanks

Controller
- ❑ Common Failure Relay
  (Decision-Maker® 6000 and APM603 controllers only)
- ❑ Decision-Maker® Paralleling System (DPS)
  (Decision-Maker® 6000 controller only)
- ❑ Dry Contact (isolated alarm)
  (Decision-Maker® 6000 controller only)
- ❑ Two Input/Five Output Module (APM402 controller only)
- ❑ Four Input/Fifteen Output Module (APM603 controller only)
- ❑ Lockable Emergency Stop Switch
- ❑ Remote Emergency Stop Switch
- ❑ Remote Serial Annunciator Panel
- ❑ Run Relay (standard with APM603, optional with others)
- ❑ Manual Key Switch (APM603 controller only)
- ❑ Manual Speed Adjust (APM402 controller only)

Cooling System
- ❑ Block Heater, 2500 W, 90-120 V
- ❑ Block Heater, 2500 W, 190-208 V
- ❑ Block Heater, 2500 W, 208-240 V
- ❑ Block Heater, 2500 W, 380-480 V
  Required for ambient temperatures below 0°C (32°F)
- ❑ Radiator Duct Flange

Electrical System
- ❑ Generator Heater
- ❑ Battery
- ❑ Battery Charger, Equalize/Float Type
- ❑ Battery Heater

Paralleling System
- ❑ Voltage Sensing

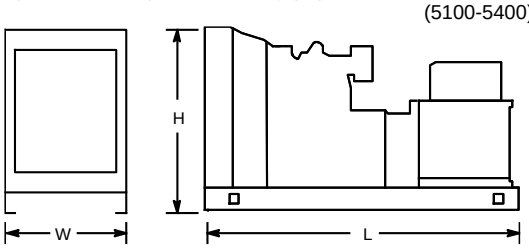
Miscellaneous
- ❑ Air Cleaner, Heavy Duty
- ❑ Air Cleaner Restriction Indicator
- ❑ Crankcase Emissions Canister
- ❑ Engine Fluids (oil and coolant) Added
- ❑ Rated Power Factor Testing
- ❑ Rodent Guards

Literature
- ❑ General Maintenance
- ❑ NFPA 110
- ❑ Overhaul
- ❑ Production

Warranty
- ❑ 2-Year Basic Limited Warranty
- ❑ 5-Year Basic Limited Warranty
- ❑ 5-Year Comprehensive Limited Warranty

Dimensions and Weights

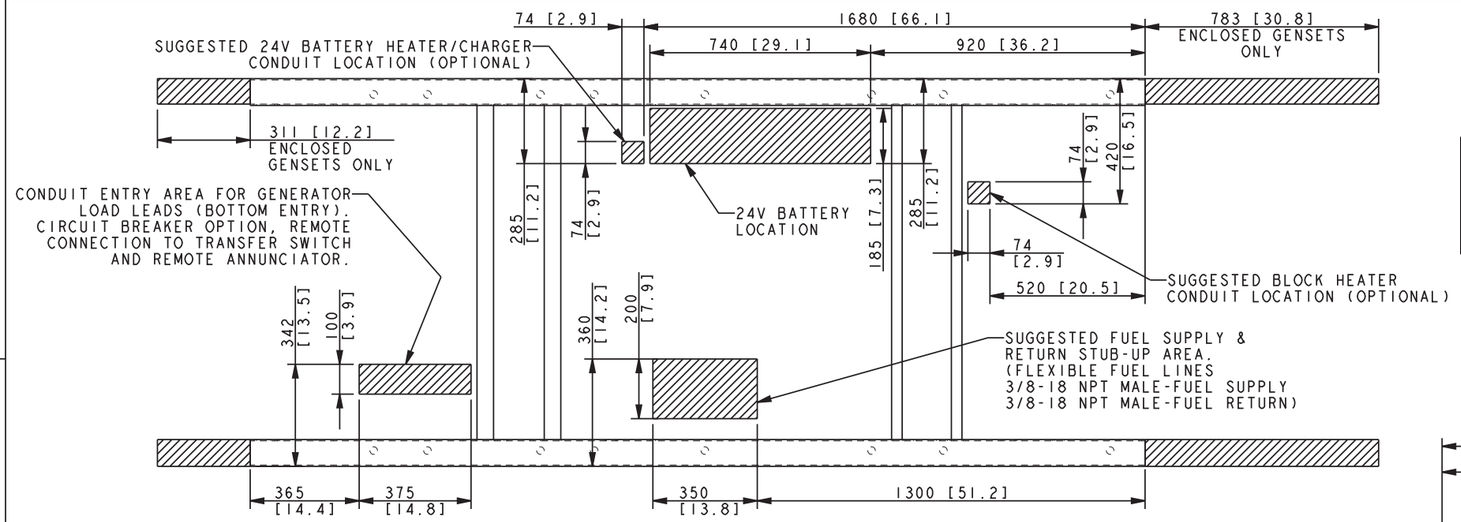
Overall Size, L x W x H, max., mm (in.):	3000 x 1300 x 1891 (118.1 x 51.2 x 74.4)
Weight (radiator model), wet, max., kg (lb.):	2313-2449 (5100-5400)



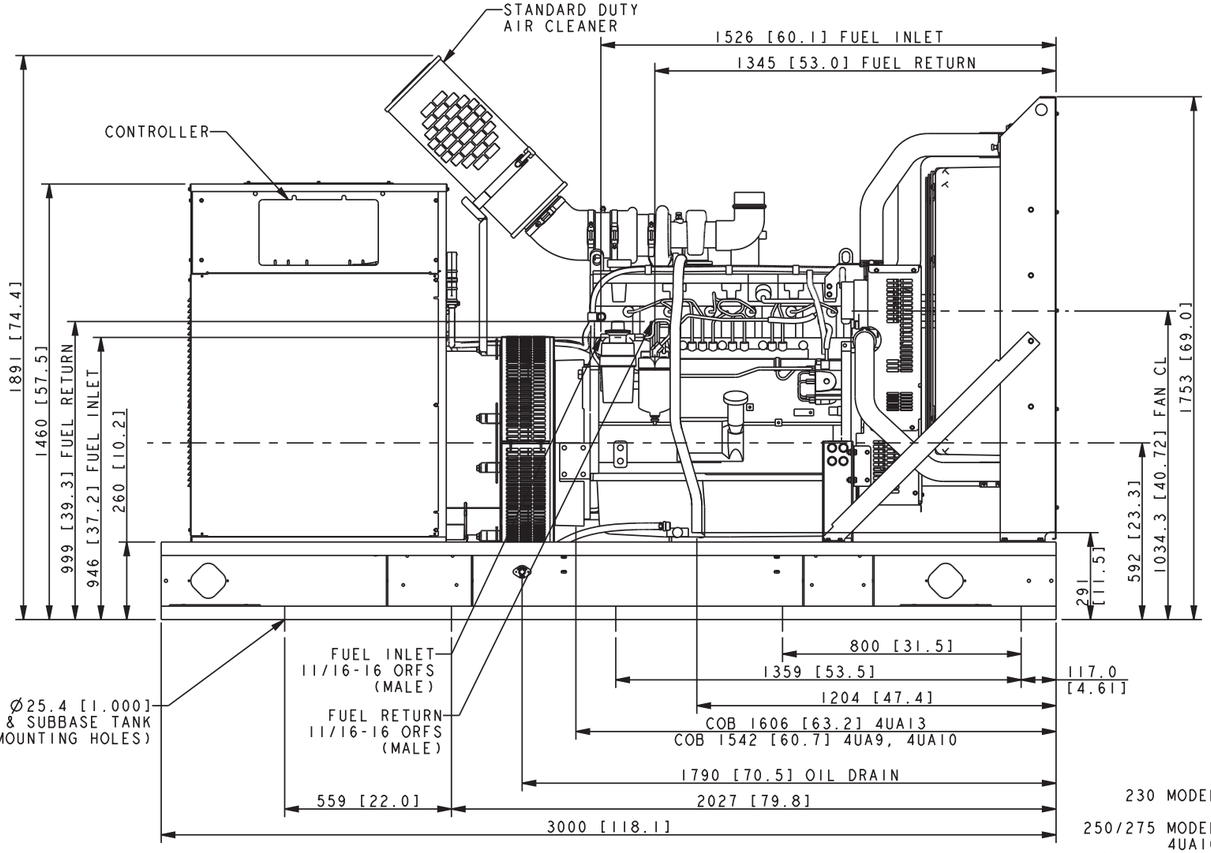
NOTE: This drawing is provided for reference only and should not be used for planning installation. Contact your local distributor for more detailed information.

Discovery Energy, LLC
200 Twin Oaks Road, Kohler, WI 53044 USA
For the nearest sales and service outlet in the US and Canada, phone 1-800-544-2444 - powersystems.rehlko.com

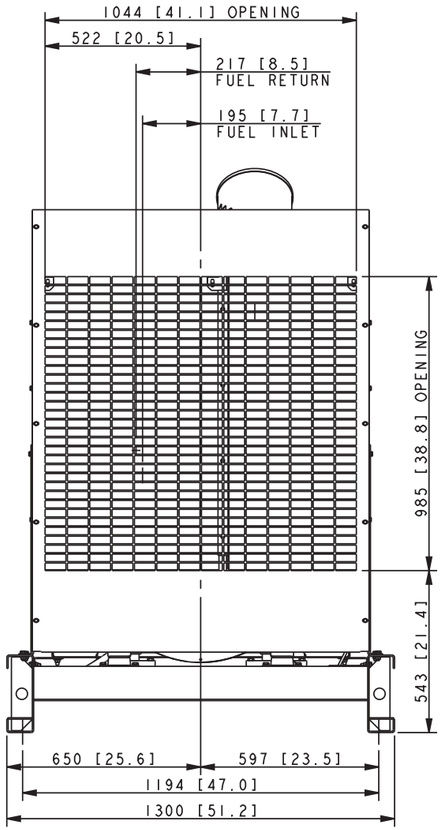
EXHIBIT 'C'



INSTALLATION NOTE
IF SUBBASE FUEL TANK AND/OR SOUND HOUSING IS USED, REFER TO SUBBASE FUEL TANK ADV TO DETERMINE MOUNTING LOCATIONS.



230 MODEL, 60 HZ 4UA9
250/275 MODEL, 60 HZ 4UA10, 4UA13
300 MODEL, 60HZ, 4UA13 RECONN. & 600V ALTERNATORS JOHN DEERE 6090HF, TIER III



MODEL	ALT.	GENSET WEIGHT (WET)
230	4UA9	2268 Kg [5000 LBS]
250/275	4UA10	2313 Kg [5100 LBS]
230/250/ 275/300	4UA13	2449 Kg [5400 LBS]

NOTES:
**1) WHEN SUBBASE TANK IS USED, CONDUIT MUST BE LOCATED OUTSIDE OF TANK AREA OR IN STUB-UP AREA FOR SUBBASE TANK. REFER TO SUBBASE ADV.

2) DIMENSIONS IN [] ARE ENGLISH EQUIVALENTS.

3) IF AN ENCLOSURE IS USED THE FUEL LINE MUST BE STUBBED UP FROM DIRECTLY UNDER THE UNIT OR BROUGHT IN FROM THE END OF THE SKID. REFER TO ENCLOSURE ADV.

4) IF IBC CERTIFICATION IS REQUIRED SEE SEISMIC ADV FOR INSTALLATION INSTRUCTIONS.

REV	DATE	ON COMPOSITE DWGS, SEE PART NO. FOR REVISION LEVEL	BY
-	9-27-10	NEW DRAWING [90099]	DJV
A	11-10-10	(B-8) 1891 [74.4] DIM ADDED; (C-6) STANDARD	
		DUTY AIR CLEANER NOTE ADDED; (D-4,8) ENCLOSED	
		GENSETS ONLY NOTE ADDED; SHEET 2 ADDED,	
		EXHAUST DETAIL MOVED TO SHEET 2 [90647-3]	DJV
B	8-22-11	(C-5) 3/8-18 WAS 1/2-14 SUPPLY [92115]	SAM

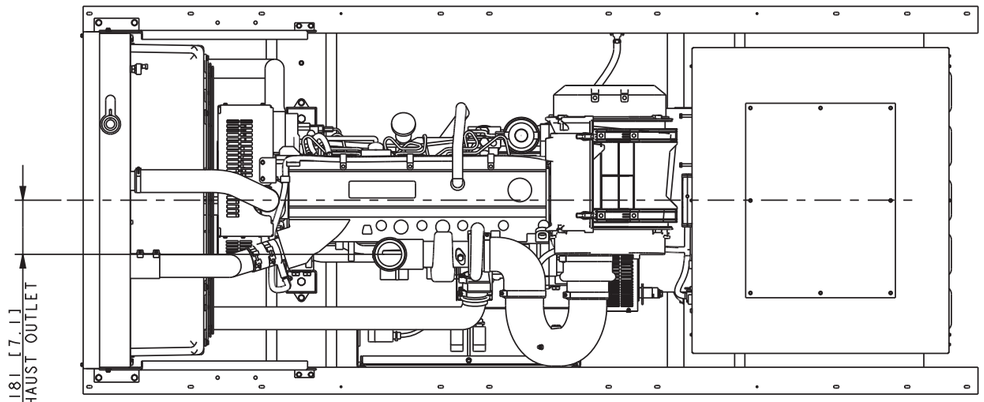
UNLESS OTHERWISE SPECIFIED - 1) DIMENSIONS ARE IN MILLIMETERS 2) TOLERANCES ARE: X.XX ±, X.X ±, X ±, ANGLES ±. SURFACE FINISH MAX. THIRD ANGLE PROJECTION

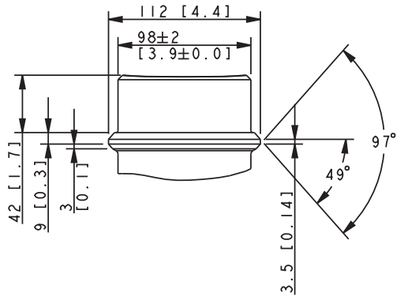
APPROVALS		DATE
DRAWN	DJV	9-27-10
CHECKED	DJV	9-27-10
APPROVED	JDZ	9-27-10

KOHLER CO. METRIC PRO-E
POWER SYSTEMS, KOHLER, WI 53044 U.S.A.

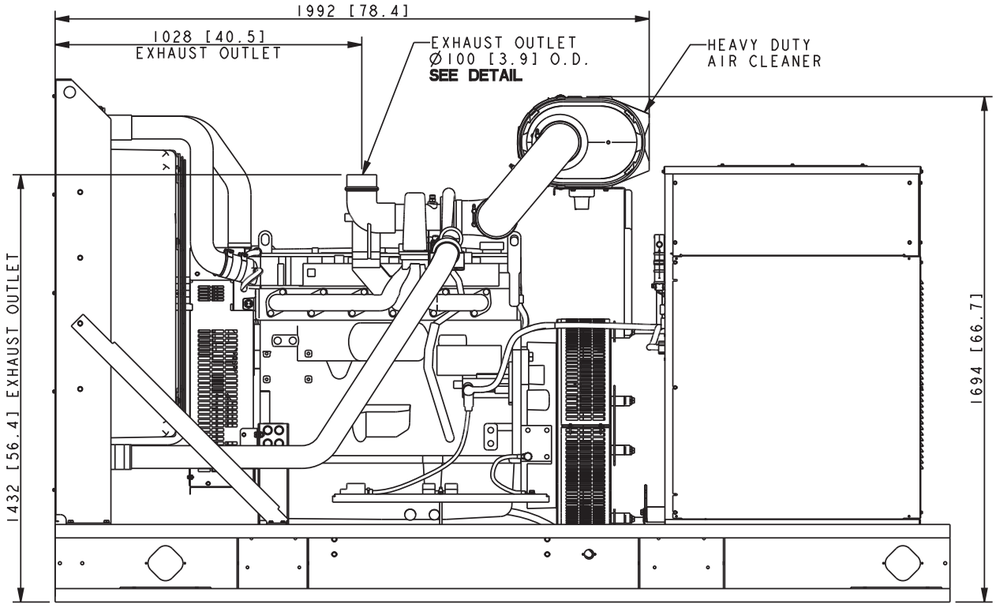
TITLE: DIMENSION PRINT, 230-300 JD
SCALE 0.11 | CAD NO. | SHEET 1 of 2
DWG NO. ADV-7900 | D

EXHIBIT 'C'





EXHAUST OUTLET
DETAIL



REV	DATE	ON COMPOSITE DWGS, SEE PART NO. FOR REVISION LEVEL	BY
A	11-10-10	SHEET 2 ADDED [90647-3]	DJV
B	8-22-11	SEE SHEET 1 [92115]	SAM

UNLESS OTHERWISE SPECIFIED -
1) DIMENSIONS ARE IN MILLIMETERS
2) TOLERANCES ARE:
X.XX ±
X.X ±
X ±
ANGLES ±
SURFACE FINISH MAX.
THIRD ANGLE PROJECTION

APPROVALS	DATE
DRAWN DJV	11-10-10
CHECKED DJV	11-10-10
APPROVED JDZ	11-10-10

KOHLER CO. METRIC PRO-E
POWER SYSTEMS, KOHLER, WI 53044 U.S.A.

TITLE
DIMENSION PRINT, 230-300 JD

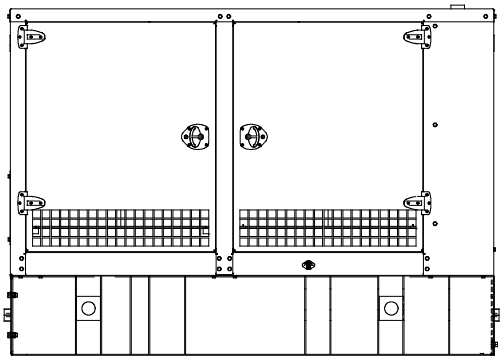
SCALE 0.11 | CAD NO. | SHEET 2 of 2
DWG NO. **ADV-7900** | **D**

EXHIBIT 'C'

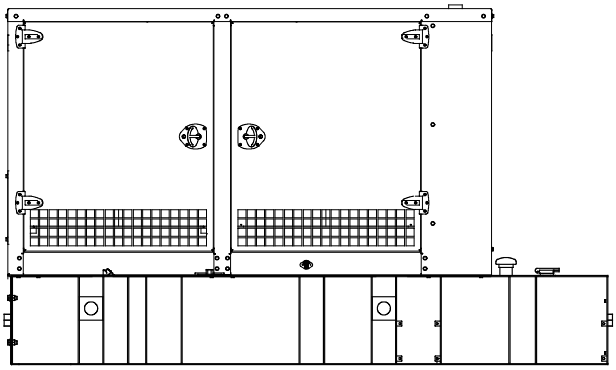
KOHLER®

Industrial Generator Set Accessories

Weather/Sound Enclosure and Subbase Fuel Tank Package



Enclosure with Standard Subbase Fuel Tank



Enclosure with State Code Subbase Fuel Tank

Applicable to the following:

40REOZJC, 50/60REOZJD, 80/100/150/200REOZJF, 125/180REOZJG, 230- 275REOZJE, and 300REOZJ

Weather Enclosure Standard Features

- Internal-mounted silencer and flexible exhaust connector.
- Lift base or tank-mounted, steel construction with hinged doors.
- Fade-, scratch-, and corrosion-resistant Kohler® Power Armor™ automotive-grade textured finish.
- Enclosure has four access doors which allow for easy maintenance.
- Lockable, flush-mounted door latches.
- Vertical air inlet and outlet discharge to redirect air and reduce noise.
- Weather enclosure is designed to150 mph (241 kph) wind load rating.

Sound Enclosure Standard Features

- Includes all of the weather enclosure features with the addition of acoustic insulation material.
- Lift base or tank-mounted, steel or aluminum construction with hinged doors. Aluminum enclosures are recommended for high humidity and/or high salt/ coastal regions.
- Acoustic insulation that meets UL 94 HF1 flammability classification and repels moisture absorption.
- Sound-attenuated enclosure that uses up to 51 mm (2 in.) of acoustic insulation.
- Steel sound enclosure is designed to150 mph (241 kph) wind load rating.
- Aluminum sound enclosure is certified to 186 mph (299 kph) wind load rating for 80- 150REOZJ models.
- Aluminum sound enclosure is certified to 181 mph (291 kph) wind load rating for 180- 300REOZJ models.

Subbase Fuel Tank Features

- The fuel tank has a Power Armor Plus™ textured epoxy-based rubberized coating.
- The above-ground rectangular secondary containment tank mounts directly to the generator set, below the generator set skid (subbase).
- Both the inner and outer tanks have emergency relief vents.
- Flexible fuel lines are provided with subbase fuel tank selection.
- The secondary containment generator set base tank meets UL 142 tank requirements. The inner (primary) tank is sealed inside the outer (secondary) tank. The outer tank contains the fuel if the inner tank leaks or ruptures.
- State tanks with varying capacities are an available option. Florida Dept. of Environmental Protection (FDEP) File No. EQ-634 approved.

Available Approvals and Listings

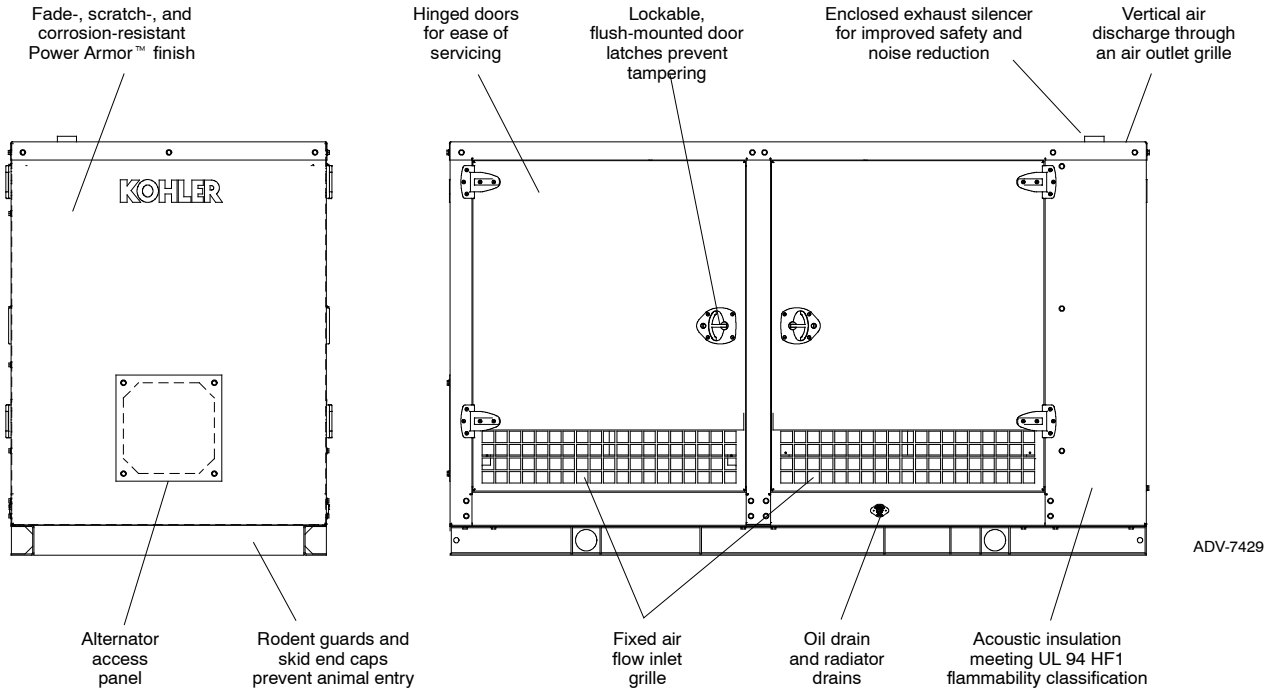
- ❑ UL 2200 Listing
- ❑ CSA Certified
- ❑ IBC Seismic Certification *
- ❑ California OSHPD Pre- Approval *
- ❑ cUL Listing (fuel tanks only)
- ❑ Hurricane Rated Enclosure - Available on sound aluminum 80- 300kW models. (Impact rated for Large Missile Level E and Wind load rated per Florida Building Code tested to TAS201- 94, TAS202- 94 and TAS203- 94 standards)

NOTE: Some models may have limited third-party approvals; see your local distributor for details.

* Requires a state code subbase fuel tank selection.

EXHIBIT 'C'

Weather and Sound Enclosure



Note: 40REOZJC model shown, other models are similar. Refer to the respective ADV drawings for details.

Enclosure Features

- Available in steel (14 gauge) formed panel, solid construction. Preassembled package offering corrosion resistant, dent resilient structure mounting directly to lift base or fuel tank.
- Power Armor™ automotive-grade finish resulting in advanced corrosion and abrasion protection as well as enhanced edge coverage and color retention.
- Internal exhaust silencer offering maximum component life and operator safety.

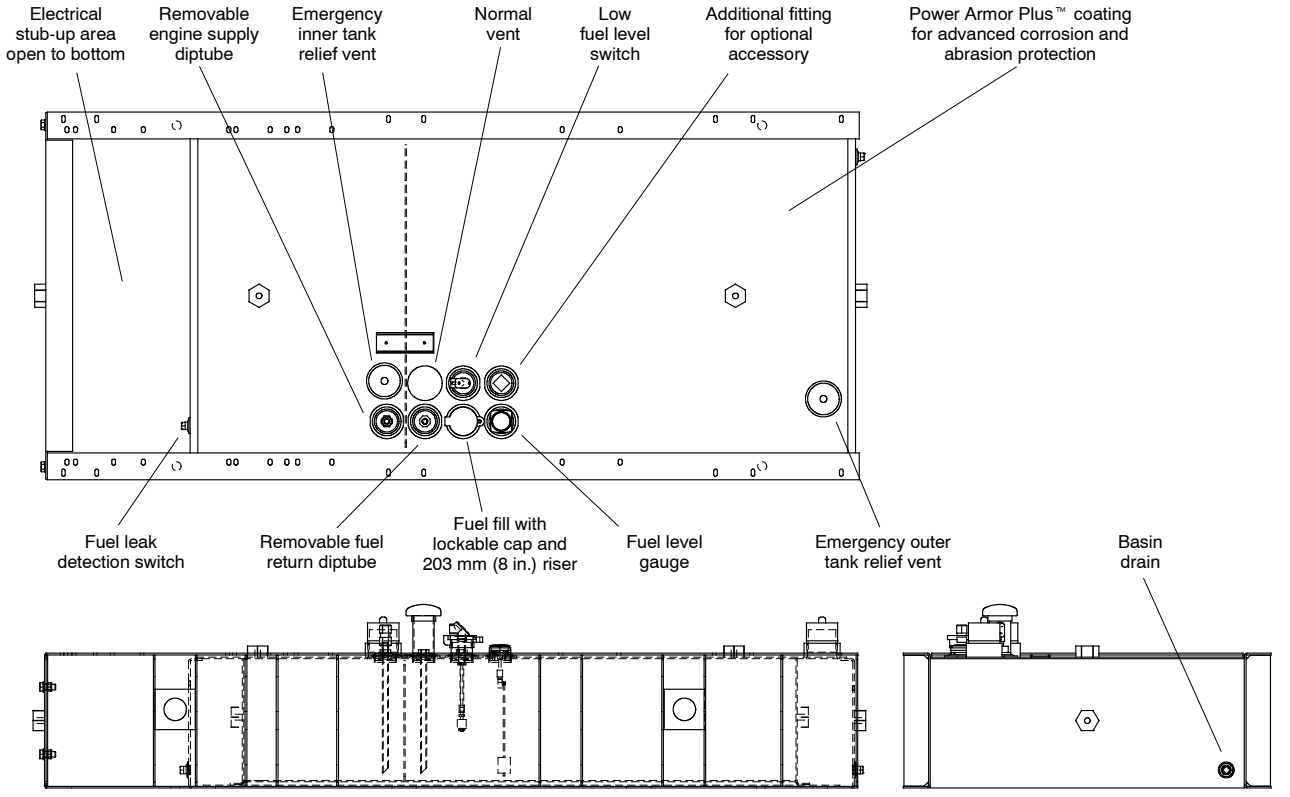
  NOTE: Installing an additional length of exhaust tail pipe may increase backpressure levels. Please refer to the generator set spec sheet for the maximum backpressure value.
- Interchangeable modular panel construction. Allows complete serviceability or replacement without compromising enclosure design.
- Cooling/combustion air intake with a horizontal air inlet. Sized for maximum cooling airflow.
- Service access. Multi-personnel doors for easy access to generator set control and servicing of the fuel fill, fuel gauge, oil fill, and battery.
- Cooling air discharge. Weather protective design featuring a vertical air discharge outlet grille. Redirects cooling air up and above enclosure to reduce ambient noise.

Additional Sound Enclosure Features

- Available in steel (14 gauge) or aluminum 3.2 mm (0.125 in.) formed panel, solid construction.
- Sound-attenuated design. Acoustic insulation UL 94 HF1 listed for flame resistance offering up to 51 mm (2 in.) mechanically restrained acoustic insulation.
- Cooling air discharge. The sound enclosures include acoustic insulation with urethane film.
- Snow package enclosure is designed to meet NFPA 110 requirement to - 20°C (- 4°F).

EXHIBIT 'C'

Subbase Fuel Tank



Note: 40REOZJC model shown, other models are similar. Refer to the respective ADV drawings for details.

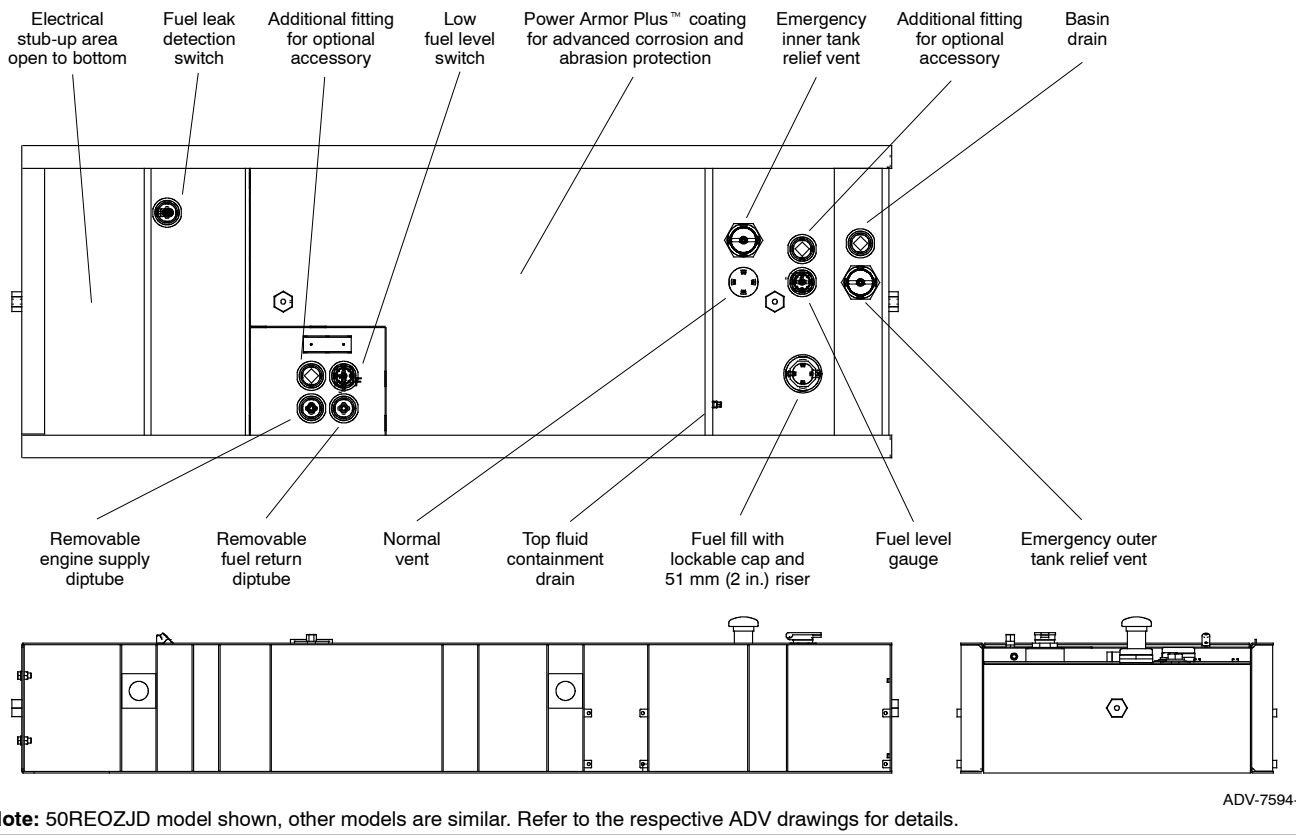
Standard Subbase Fuel Tank Features

- Extended operation. Usable tank capacity offers full load standby operation of up to 96 hours on select models.
- Power Armor Plus™ textured epoxy-based rubberized coating that creates an ultra-thick barrier between the tank and harsh environmental conditions like humidity, saltwater, and extreme temperatures, and provides advanced corrosion and abrasion protection.
- UL listed. Secondary containment generator set base tank meeting UL 142 requirements.
- NFPA compliant. Designed to comply with the installation standards of NFPA 30 and NFPA 37.
- Integral external lift lugs. Enables crane with spreader-bar lifting of the complete package (empty tank, mounted generator set, and enclosure) to ensure safety.
- Emergency pressure relief vents. Vents ensure adequate venting of the inner and outer tank under extreme pressure and/or emergency conditions.
- Normal vent with cap. Vent is raised above lockable fuel fill.
- Low fuel level switch. Annunciates a 50% low fuel level condition at generator set control.
- Leak detection switch. Annunciates a contained primary tank fuel leak condition at generator set control.
- Electrical stub-up.

NOTE: For IBC Seismic Certification and/or California OSHPD Pre- Approval, see State Code Subbase Fuel Tank.

EXHIBIT 'C'

State Code Subbase Fuel Tank



Note: 50REOZJD model shown, other models are similar. Refer to the respective ADV drawings for details.

State Code Subbase Fuel Tank Features

- State tank designed to comply with the installation standards of the Florida Dept. of Environmental Protection (FDEP) File No. EQ-634.
- Includes all of the Standard Subbase Fuel Tank Features.

State Code Subbase Fuel Tank Options

Bottom Clearance

❑ I-beams, provides 106 mm (4.2 in.) of ground clearance

Fuel in Basin Options

❑ Fuel in basin switch, Florida Dept. of Environmental Protection (FDEP) File No. EQ-682 approved

Fuel Fill Options

❑ Fill pipe extension to within 152 mm (6 in.) of bottom of fuel tank.

❑ 18.9 L (5 gallon) spill containment with 95% shutoff

❑ 18.9 L (5 gallon) spill containment

❑ 18.9 L (5 gallon) spill containment fill to within 152 mm (6 in.) of bottom of fuel tank

❑ 28.4 L (7.5 gallon) spill containment, Florida Dept. of Environmental Protection (FDEP) File No. EQ-882 approved

❑ 28.4 L (7.5 gallon) spill containment with 95% shutoff, Florida Dept. of Environmental Protection (FDEP) File No. EQ- 882/ EQ-883 approved

Fuel Supply Options

❑ Fire safety valve (installed on fuel supply line)

❑ Ball valve (installed on fuel supply line)

High Fuel Level Switch

❑ High fuel level switch

❑ High fuel level switch, Florida Dept. of Environmental Protection (FDEP) File No. EQ-682 approved

Normal Vent Options

❑ 3.7 m (12 ft.) above grade (without spill containment)

❑ 3.7 m (12 ft.) above grade (with spill containment)

Tank Marking Options

❑ Decal, Combustible Liquids - Keep Fire Away (qty. 2)

❑ Decal, NFPA 704 identification (qty. 2)

❑ Decal, tank number and safe fuel fill height (qty. 2)

❑ Decal, tank number and safe fuel fill height, NFPA 704 identification

Fluid Containment Options

❑ 100% engine fluid containment

Third-Party Approvals

❑ IBC Seismic Certification

❑ California OSPHD Pre- Approval

EXHIBIT 'C'

Enclosure and Subbase Fuel Tank Specifications

Fuel Tank Capacity, L (gal.)	Est. Fuel Supply Hours at 60 Hz with Full Load, Nominal/ Actual	Enclosure and Subbase Fuel Tank					Fuel Tank Height (or additional skid height with no tank), mm (in.)	Sound Pressure Level at 60 Hz with Full Load, Weather/ Sound, dB(A)‡
		Max. Dimensions, mm (in.)			Max. Weight, kg (lb.) *			
		Length	Width	Height	With Steel Enclosure	With Aluminum Enclosure		
40REOZJC Standard Fuel Tank								
No Tank	0	2320 (91.3)	1077 (42.4)	1521 (60.0)	966 (2130)	853 (1880)	100 (4)	78/65
424 (112)	24/32			1827 (71.9)	1223 (2697)*	1110 (2447)*	406 (16)	
625 (165)	48/48			1980 (78.0)	1274 (2809)*	1161 (2559)*	559 (22)	
958 (253)	72/73			2234 (88.0)	1555 (3429)*	1442 (3179)*	813 (32)	
50REOZJD Standard Fuel Tank								
No Tank	0	2320 (91.3)	1077 (42.4)	1521 (59.9)	1027 (2265)	914 (2015)	100 (4)	78/66
424 (112)	24/26			1827 (71.9)	1285 (2832)*	1171 (2582)*	406 (16)	
625 (165)	36/38			1980 (78.0)	1335 (2944)*	1222 (2694)*	559 (22)	
946 (250)	48/58			2234 (88.0)	1555 (3429)*	1442 (3179)*	813 (32)	
50REOZJD State Code Fuel Tank †								
439 (116)	24/26	2896 (114)	1077 (42.4)	1883 (74.1)	1529 (3371)*	1416 (3121)*	356 (14)	78/66
958 (253)	48/58			2213 (87.1)	1653 (3644)*	1540 (3394)*	686 (27)	
1408 (372)	72/86			2441 (96.1)	1804 (3977)*	1691 (3727)*	914 (36)	
60REOZJD Standard Fuel Tank								
No Tank	0	2320 (91.3)	1077 (42.4)	1521 (59.9)	1164 (2566)	1051 (2316)	100 (4)	78/68
492 (130)	24/26			1878 (73.9)	1438 (3170)*	1324 (2920)*	457 (18)	
783 (207)	36/41			2107 (83.0)	1514 (3338)*	1401 (3088)*	686 (27)	
946 (250)	48/50			2234 (88.0)	1555 (3429)*	1442 (3179)*	813 (32)	
60REOZJD State Code Fuel Tank †								
556 (147)	24/29	2895 (114)	1077 (42.4)	1959 (77.1)	1616 (3563)*	1503 (3313)*	432 (17)	78/68
958 (253)	48/50			2213 (87.1)	1767 (3896)*	1654 (3646)*	686 (27)	
1408 (372)	72/74			2441 (96.1)	1918 (4228)*	1805 (3978)*	914 (36)	
80REOZJF Standard Tank								
No Tank	0	2821 (111.1)	1156 (45.5)	1723 (67.8)	1483 (3269)	1351 (2979)	150 (6)	83/69
791 (209)	24/30			2081 (81.9)	1766 (3894)*	1635 (3604)*	508 (20)	
1317 (348)	48/50			2386 (93.9)	1882 (4150)*	1751 (3860)*	813 (32)	
80REOZJF State Code Fuel Tank †								
814 (215)	24/31	3400 (133.9)	1156 (45.5)	2111 (83.1)	1996 (4400)*	1864 (4110)*	432 (17)	83/69
1571 (415)	48/60			2441 (96.1)	2236 (4929)*	2104 (4639)*	762 (30)	
3089 (816)	96/113	3607 (142.0)	1829 (72.0)	2536 (99.8)	3058 (6741)*	2933 (6466)*	813 (32.0)	

Note: Data in table is for reference only, refer to the respective ADV drawings for details.

***** Max. weight includes the generator set (wet) using the largest alternator option, enclosure with acoustic insulation added, silencer, and tank (no fuel).

† State code fuel tank specifications (height and weight) include I-beam option.

‡ Log average sound pressure level of 8 measured positions around the perimeter of the unit at a distance of 7 m (23 ft). Refer to TIB-114 for details.

EXHIBIT 'C'

Enclosure and Subbase Fuel Tank Specifications (continued)

Fuel Tank Capacity, L (gal.)	Est. Fuel Supply Hours at 60 Hz with Full Load, Nominal/ Actual	Enclosure and Subbase Fuel Tank					Fuel Tank Height (or additional skid height with no tank), mm (in.)	Sound Pressure Level at 60 Hz with Full Load, Weather/ Sound, dB(A)‡
		Max. Dimensions, mm (in.)			Max. Weight, kg (lb.) *			
		Length	Width	Height	With Steel Enclosure	With Aluminum Enclosure		
100REOZJF Standard Tank								
No Tank	0	2821 (111.1)	1156 (45.5)	1723 (67.8)	1592 (3510)	1461 (3220)	150 (6)	82/69
791 (209)	24/25			2081 (81.9)	1875 (4134)*	1744 (3844)*	508 (20)	
1696 (448)	48/54	3400 (133.9)		2386 (93.9)	2070 (4564)*	1939 (4274)*	813 (32)	
100REOZJF State Code Fuel Tank †								
814 (215)	24/26	3400 (133.9)	1156 (45.5)	2111 (83.1)	2105 (4641)*	1974 (4351)*	432 (17)	82/69
1571 (415)	48/50			2441 (96.1)	2345 (5170)*	2214 (4880)*	762 (30)	
3089 (816)	96/96	3607 (142.0)	1829 (72.0)	2536 (99.8)	3167 (6981)*	3042 (6706)*	813 (32.0)	
125REOZJG Standard Fuel Tank								
No Tank	0	3532 (139.0)	1153 (45.4)	1739 (68.5)	1651 (3632)	1515 (3333)	0 (0)	87/73
1128 (298)	24/30			2222 (87.5)	2400 (5280)*	2264 (4981)*	483 (19)	
2207 (583)	48/58			2653 (104.4)	2751 (6052)*	2615 (5753)*	914 (36)	
125REOZJG State Code Fuel Tank †								
1196 (316)	24/31	4414 (173.8)	1153 (45.4)	2328 (91.7)	2382 (5240)*	2446 (4941)*	483 (19)	87/73
2252 (595)	48/60			2683 (105.6)	2654 (5839)*	2500 (5511)*	838 (33)	
4403(1163)	96/113	4445 (175.0)	1829 (72.0)	2654 (104.5)	3707 (8173)*	3571 (7873)*	914 (36.0)	
150REOZJF Standard Fuel Tank								
No Tank	0	3532 (139.0)	1153 (45.4)	1739 (68.5)	1860 (4101)	1724 (3800)	0 (0)	86/75
1128 (298)	24/25			2222 (87.5)	2609 (5752)*	2473 (5452)*	483 (19)	
2207 (583)	48/49			2653 (104.4)	2960 (6526)*	2824 (6226)*	914 (36)	
150REOZJF State Code Fuel Tank †								
1196 (316)	24/27	4414 (173.8)	1153 (45.4)	2328 (91.7)	2591 (5712)*	2455 (5412)*	483 (19)	86/75
2252 (595)	48/50			2683 (105.6)	2890 (6361)*	2727 (6012)*	838 (33)	
4403(1163)	96/95	4445 (175.0)	1829 (72.0)	2654 (104.5)	3839 (8463)*	3702 (8163)*	914 (36.0)	
180REOZJG Standard Fuel Tank								
No Tank	0	4094 (161.2)	1338 (52.7)	2038 (80.2)	1928 (4250)	1780 (3925)	0 (0)	85/72
1514 (400)	24/31			2521 (99.3)	2861 (6307)*	2713 (5981)*	483 (19)	
2869 (758)	48/58			2927 (115.2)	3255 (7176)*	3107 (6850)*	889 (35)	
180REOZJG State Code Fuel Tank †								
1556 (416)	24/32	5008 (197.2)	1338 (52.7)	2601 (102.4)	3162 (6971)*	3014 (6646)*	457 (18)	85/72
2896 (765)	48/59			2906 (114.4)	3488 (7690)*	3340 (7363)*	762 (30)	
5742(1517)	96/106	5436 (214.0)	1829 (72.0)	2935 (115.5)	3760 (8289)*	3474 (7659)*	914 (36.0)	
200REOZJF Standard Fuel Tank								
No Tank	0	4094 (161.2)	1338 (52.7)	2025 (79.7)	2508 (5530)	2223 (4900)	0 (0)	87/74
1514 (400)	24/26			2508 (98.7)	3441 (7587)*	3156 (6957)*	483 (19)	
2869 (758)	48/49			2914 (114.7)	3836 (8456)*	3550 (7826)*	889 (35)	
200REOZJF State Code Fuel Tank †								
1575 (416)	24/27	5008 (197.2)	1338 (52.7)	2588 (101.9)	3743 (8251)*	3456 (7621)*	457 (18)	87/74
2896 (765)	48/50			2893 (113.9)	4069 (8970)*	3783 (8340)*	762 (30)	
5742(1517)	96/95	5436 (214.0)	1829 (72.0)	2935 (115.5)	4236 (9339)*	3950 (8709)*	914 (36.0)	

Note: Data in table is for reference only, refer to the respective ADV drawings for details.

* Max. weight includes the generator set (wet) using the largest alternator option, enclosure with acoustic insulation added, silencer, and tank (no fuel).

† State code fuel tank specifications (height and weight) include I-beam option.

‡ Log average sound pressure level of 8 measured positions around the perimeter of the unit at a distance of 7 m (23 ft). Refer to TIB-114 for details.

EXHIBIT 'C'

Enclosure and Subbase Fuel Tank Specifications (continued)

Fuel Tank Capacity, L (gal.)	Est. Fuel Supply Hours at 60 Hz with Full Load, Nominal/ Actual	Enclosure and Subbase Fuel Tank					Fuel Tank Height (or additional skid height with no tank), mm (in.)	Sound Pressure Level at 60 Hz with Full Load, Weather/ Sound, dB(A)‡
		Max. Dimensions, mm (in.)			Max. Weight, kg (lb.) *			
		Length	Width	Height	With Steel Enclosure	With Aluminum Enclosure		
230REOZJE Standard Fuel Tank								
No Tank	0	4121 (162.3)	1338 (52.7)	2153 (84.8)	2654 (5850)	2540 (5600)	260 (10)	87/75
1787 (472)	24/29			2655 (104.5)	3561 (7850)*	3447 (7600)*	762 (30)	
230REOZJE State Code Fuel Tank †								
2101 (555)	24/34	5009 (197.2)	1338 (52.7)	2894 (113.9)	3895 (8587)*	3782 (8337)*	635 (25)	87/75
3573 (944)	48/58	5325 (209.7)		3173 (124.9)	4504 (9930)*	4391 (9680)*	914 (36)	
250REOZJE Standard Fuel Tank								
No Tank	0	4121 (162.3)	1338 (52.7)	2153 (84.8)	2699 (5950)	2585 (5700)	260 (10)	89/75
1787 (472)	24/26			2655 (104.5)	3606 (7950)*	3493 (7700)*	762 (30)	
250REOZJE State Code Fuel Tank †								
2101 (555)	24/31	5009 (197.2)	1338 (52.7)	2894 (113.9)	3940 (8687)*	3827 (8437)*	635 (25)	89/75
3573 (944)	48/53	5325 (209.7)		3173 (124.9)	4550 (10030)*	4436 (9780)*	914 (36)	
275REOZJE Standard Fuel Tank								
No Tank	0	4121 (162.3)	1338 (52.7)	2153 (84.8)	2835 (6250)	2722 (6000)	260 (10)	89/75
1787 (472)	24/24			2655 (104.5)	3742 (8250)*	3629 (8000)*	762 (30)	
275REOZJE State Code Fuel Tank †								
2101 (555)	24/28	5009 (197.2)	1338 (52.7)	2894 (113.9)	4076 (8987)*	3963 (8737)*	635 (25)	89/75
3573 (944)	48/48	5325 (209.7)		3173 (124.9)	4686 (10330)*	4572 (10080)*	914 (36)	
300REOZJ Standard Fuel Tank								
No Tank	0	4121 (162.3)	1338 (52.7)	2153 (84.8)	2835 (6250)	2722 (6000)	260 (10)	89/75
2067 (546)	24/24			2731 (107.5)	3770 (8311)*	3656 (8061)*	838 (33)	
300REOZJ State Code Fuel Tank †								
2101 (555)	24/25	5009 (197.2)	1338 (52.7)	2894 (113.9)	4076 (8987)*	3963 (8737)*	635 (25)	89/75
4065(1074)	48/48	5588 (220.0)		3173 (124.9)	4644 (10238)*	4530 (9988)*	914 (36)	

Note: Data in table is for reference only, refer to the respective ADV drawings for details.

***** Max. weight includes the generator set (wet) using the largest alternator option, enclosure with acoustic insulation added, silencer, and tank (no fuel).

† State code fuel tank specifications (height and weight) include I-beam option.

‡ Log average sound pressure level of 8 measured positions around the perimeter of the unit at a distance of 7 m (23 ft). Refer to TIB-114 for details.

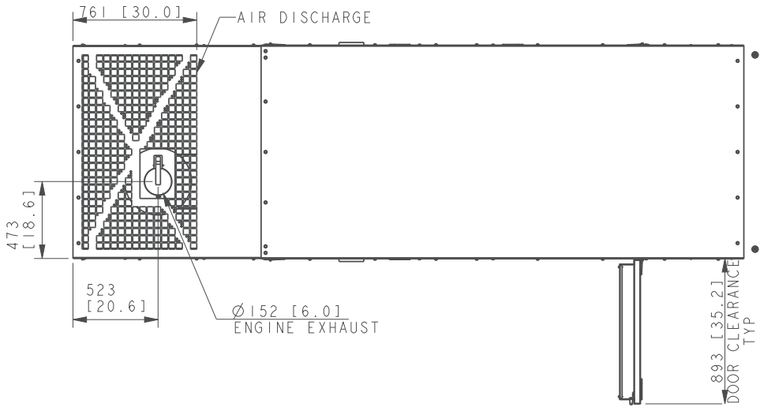
EXHIBIT 'C'

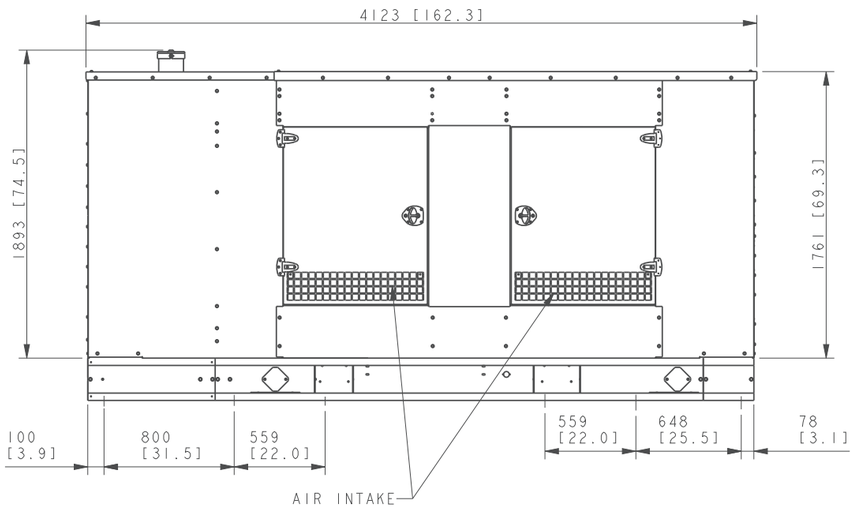
KOHLER CO., Kohler, Wisconsin 53044 USA
Phone 920-457-4441, Fax 920-459-1646
For the nearest sales and service outlet in the US and Canada, phone 1-800-544-2444
KOHLERPower.com

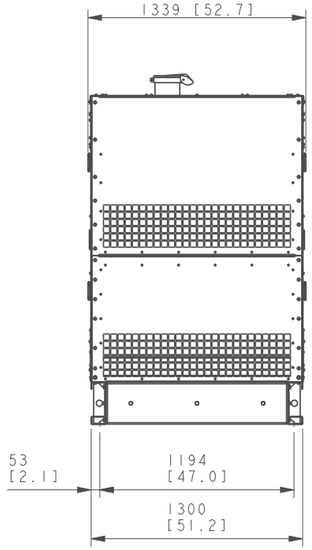
DISTRIBUTED BY:

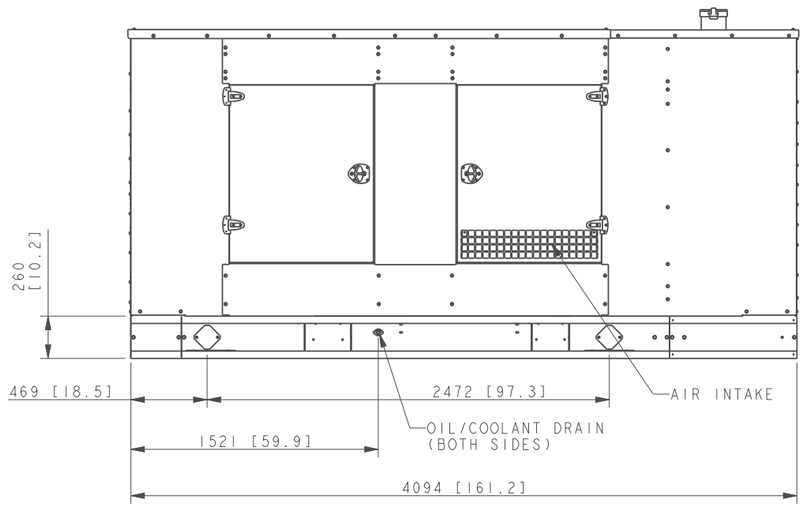
EXHIBIT 'C'

MODEL	ENCLOSURE WEIGHT KG [LBS]
STEEL WEATHER	363 [800]
STEEL SOUND	386 [850]
ALUMINIUM SOUND	238 [525]









NOTE:

1. IF STANDARD TANK IS ORDERED, ENCLOSURE MOUNTS DIRECTLY TO TANK
2. IF STATE TANK IS ORDERED, TANK MOUNTS BELOW SKID
3. TANK MAY EXTEND BEYOND ENCLOSURE (DISCHARGE END ONLY)
4. FOR STUB-UP ACCESS DURING INSTALLATION THE REAR ENCLOSURE PANEL SHOULD BE REMOVED.

230-300 MODEL
JOHN DEERE TIER III

REV	DATE	ON COMPOSITE DWGS, SEE PART NO. FOR REVISION LEVEL	BY
E	10-31-12	SHEET 2 WAS SHEET1, ADDED SHEET 1 [CT28612]	CEK
F	2-5-13	(A-1) 1-4 WAS 1-2, SEE SHEET 3 AND 4 [CT32174]	SAM
G	8-4-17	(D-6) DIM. Ø152.4 (6.00) ADDED [CT177004]	SRM
H	11-22-18	VIEWS UPDATED, SEE SHEET 2,3 & 4 [CT191932]	YPW

UNLESS OTHERWISE SPECIFIED:
1) DIMENSIONS ARE IN MILLIMETERS
2) TOLERANCES ARE:
X.XX ± 0.25
X.X ± 1.0
X ± 1.5
ANGLES ± 0° 30'
SURFACE FINISH MAX.
THIRD ANGLE PROJECTION

APPROVALS		DATE
DRAWN	DJV	10-24-08
CHECKED	CWF	10-24-08
APPROVED	SLJ	10-24-08

KOHLER CO. METRIC PRO-E

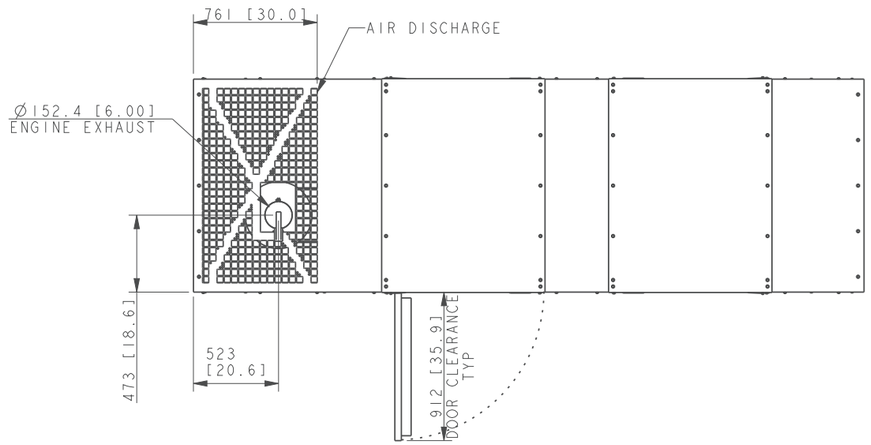
POWER SYSTEMS, KOHLER, WI 53044 U.S.A.

TITLE
DIMENSION PRINT 230-300KW JD

SCALE 0.06 | CAD NO. | SHEET 1 of 4
DWG NO. ADV-7644 | D

EXHIBIT 'C'

MODEL	ENCLOSURE WEIGHT KG [LBS]
STEEL WEATHER	363 [800]
STEEL SOUND	386 [850]
ALUMINIUM SOUND	238 [525]



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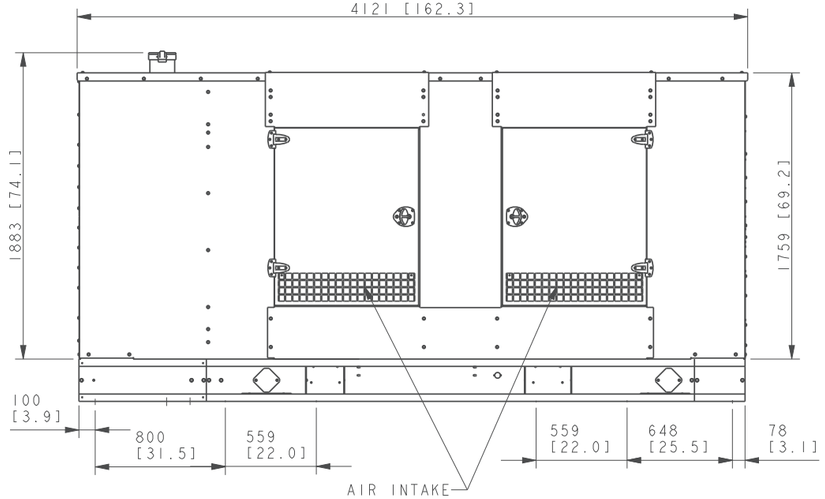
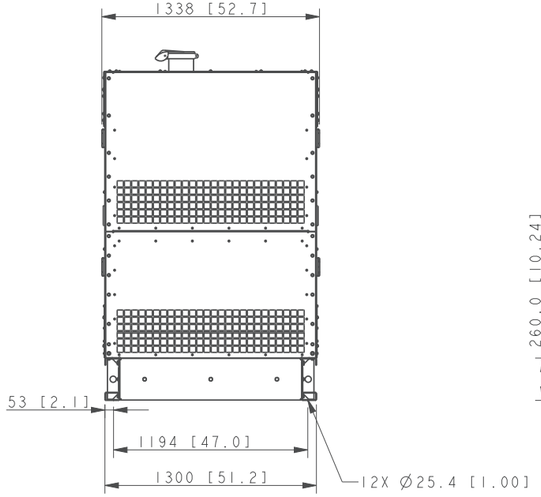
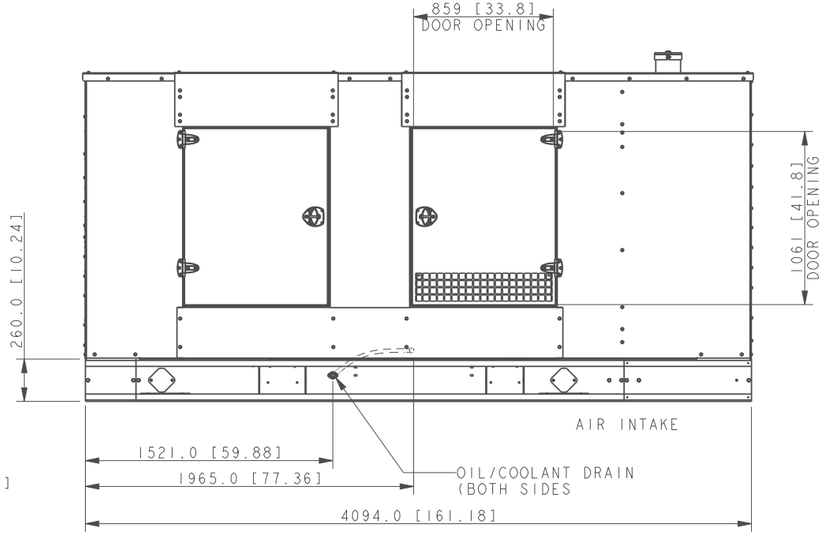






DIMENSIONS IN [] ARE IN ENGLISH EQUIVALENTS.

230-300 MODEL
JOHN DEERE TIER III
IBC/ OSHPD

REV	DATE	ON COMPOSITE DWGS, SEE PART NO. FOR REVISION LEVEL	BY
B	10-7-10	(D-6) 523 WAS 588, (C-6) 761 WAS 713, (B-2) 4121.4 WAS 4100.0 [90099-5]	RJS
C	3-16-11	(A-8) 260.0 WAS 200.0 [91189]	SAM
D	6-20-11	(C-3) STUB-UP NOTE ADDED [91752]	SAM
E	10-31-12	SHEET2 WAS SHEET 1, ADDED SHEET 1 [CT28612]	CEK
F	2-5-13	(A-1) 2-4 WAS 2-2, SEE SHEET 3 AND 4 [CT32174]	SAM
G	8-4-17	(C-5) DIM. Ø152.4 (6.00) ADDED; SEE SHEET 1 [CT177004]	SRM
H	11-22-18	VIEWS UPDATED, SEE SHEET 1,3 & 4 [CT191932]	YPW

UNLESS OTHERWISE SPECIFIED - 1) DIMENSIONS ARE IN MILLIMETERS 2) TOLERANCES ARE: X.XX ± 0.25, X.X ± 1.0, X ± 1.5, ANGLES ± 0° 30' — SURFACE FINISH MAX. — THIRD ANGLE PROJECTION

APPROVALS		DATE
DRAWN	DJV	10-24-08
CHECKED	CWF	10-24-08
APPROVED	SLJ	10-24-08

KOHLER CO. METRIC PRO-E

POWER SYSTEMS, KOHLER, WI 53044 U.S.A.

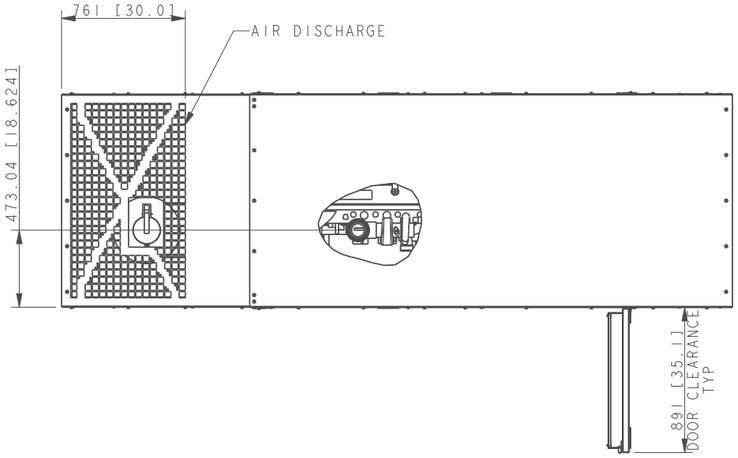
TITLE: DIMENSION PRINT 230-300KW JD

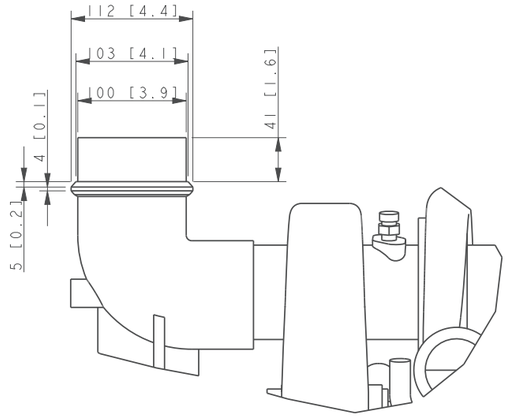
SCALE 0.06 | CAD NO. | SHEET 2 of 4

DWG NO. ADV-7644 | D

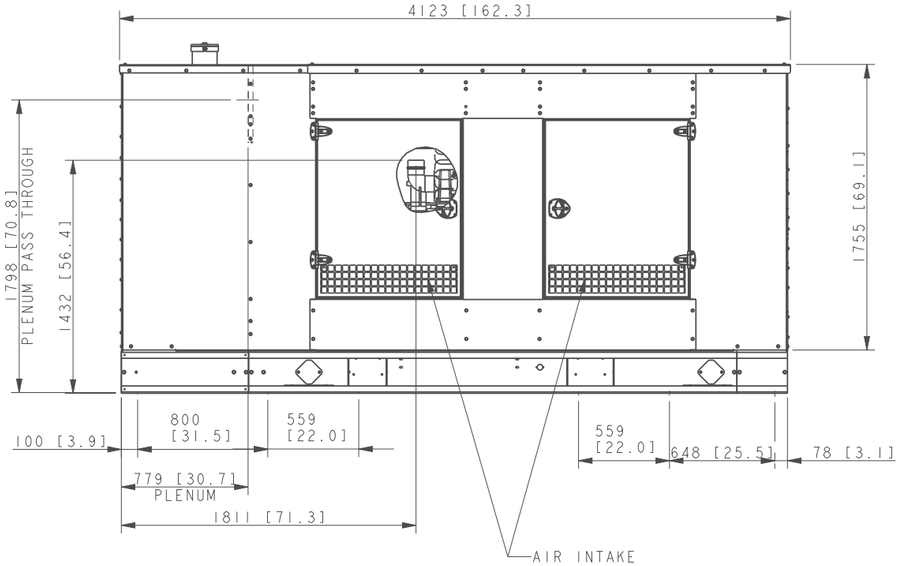
EXHIBIT 'C'

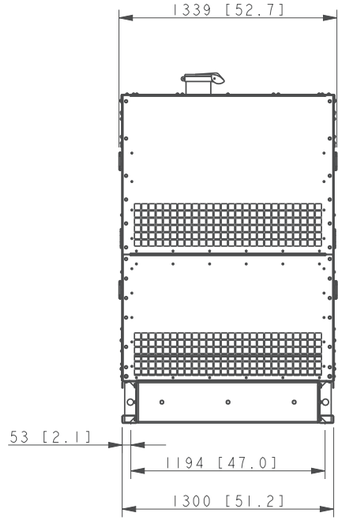
MODEL	ENCLOSURE WEIGHT KG [LBS]
STEEL WEATHER	302 [665]
STEEL SOUND	325 [715]
ALUMINIUM SOUND	177 [390]

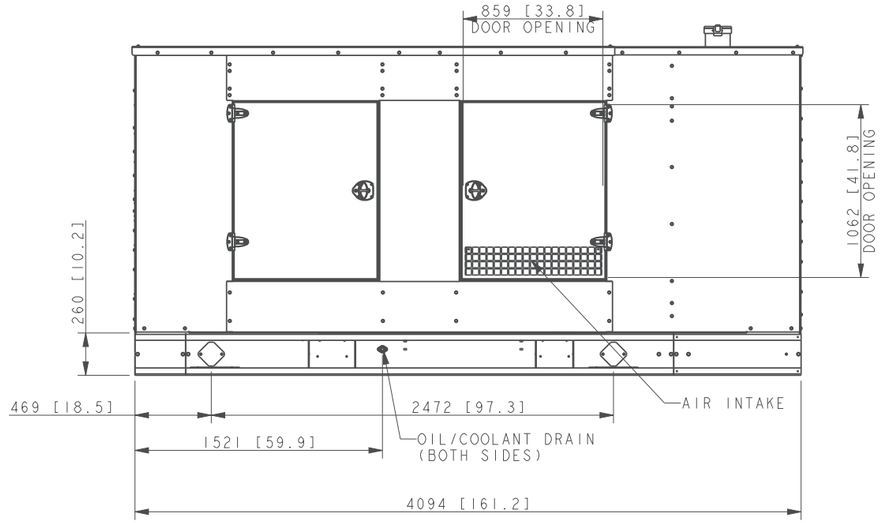




EXHAUST OUTLET
SCALE 0.400







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CA AQMD READY ENCLOSURES (NO SILENCER)

230-300 MODEL
JOHN DEERE TIER III

REV	DATE	ON COMPOSITE DWGS, SEE PART NO. FOR REVISION LEVEL	BY
F	2-5-13	SHEET 3 AND CA AQMD MODEL ADDED, SEE SHEET 4 [CT32174]	DJV
G	8-4-17	SEE SHEET 1 & 2 [CT177004]	SRM
H	11-22-18	VIEWS UPDATED, SEE SHEET 1,2 & 4 [CT191932]	YPW

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APPROVALS		DATE
DRAWN	SAM	2-5-13
CHECKED	KEM	2-5-13
APPROVED	KEM	2-5-13

KOHLER CO. METRIC PRO-E
POWER SYSTEMS, KOHLER, WI 53044 U.S.A.

TITLE: DIMENSION PRINT 230-300KW JD

SCALE 0.06 | CAD NO. | SHEET 3 of 4
DWG NO. ADV-7644 | D

EXHIBIT 'C'

MODEL	ENCLOSURE WEIGHT KG [LBS]
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STEEL SOUND	325 [715]
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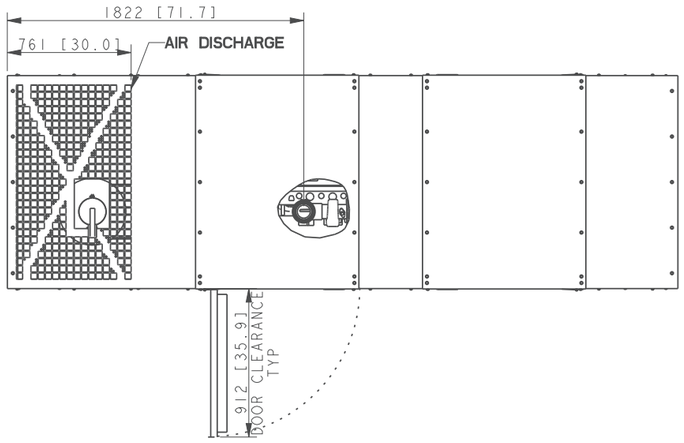
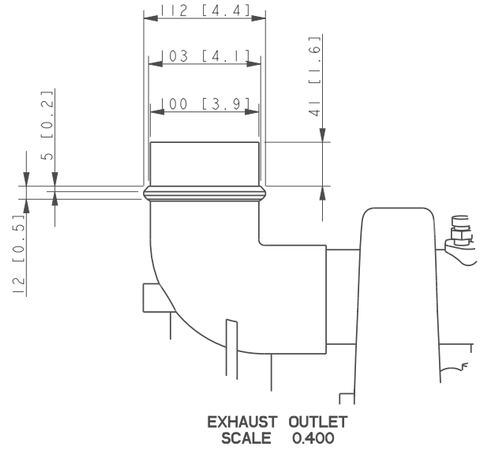
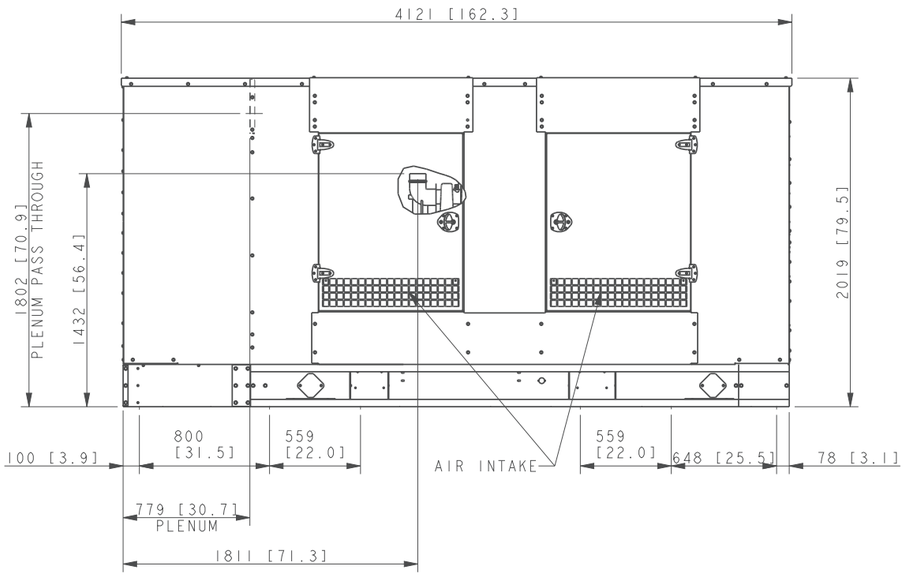
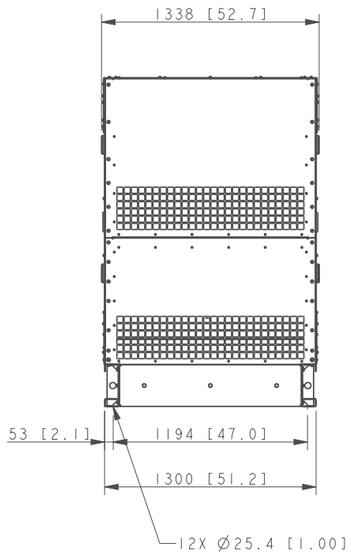
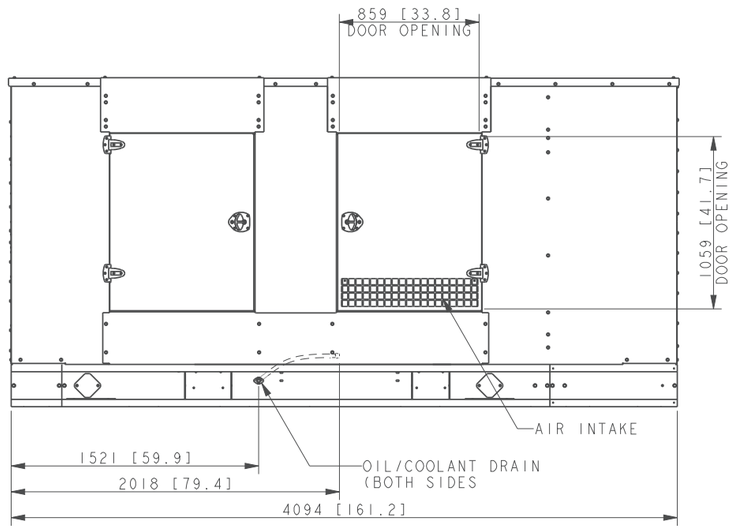




EXHAUST OUTLET
SCALE 0.400







CA AQMD READY ENCLOSURES (NO SILENCER)

DIMENSIONS IN [] ARE IN ENGLISH EQUIVALENTS.

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230-300 MODEL
JOHN DEERE TIER III
IBC/ OSHPD

REV	DATE	ON COMPOSITE DWGS, SEE PART NO. FOR REVISION LEVEL	BY
F	2-5-13	SHEET 4 AND CA AQMD MODEL ADDED, SEE SHEET 3 [CT32174]	SAM
G	8-4-17	SEE SHEET 1 & 2 [CT177004]	SRM
H	11-22-18	VIEWS UPDATED, SEE SHEET 1,2 & 3 [CT191932]	YPW

UNLESS OTHERWISE SPECIFIED: 1) DIMENSIONS ARE IN MILLIMETERS 2) TOLERANCES ARE: X.XX ± 0.25, X.X ± 1.0, X ± 1.5, ANGLES ± 0° 30' SURFACE FINISH MAX. THIRD ANGLE PROJECTION

APPROVALS		DATE
DRAWN	SAM	2-5-13
CHECKED	KEM	2-5-13
APPROVED	KEM	2-5-13

KOHLER CO. METRIC PRO-E
POWER SYSTEMS, KOHLER, WI 53044 U.S.A.

TITLE: DIMENSION PRINT 230-300KW JD

SCALE 0.06 | CAD NO. | SHEET 4 of 4

DWG NO. ADV-7644 | D

EXHIBIT 'C'

KOHLER®

Model: KEP

Automatic Transfer Switches
Service Entrance Rated

Controller

- Decision-Maker® MPAC 1500

Ratings

Power Switching Device	Current	Voltage, Frequency
Molded case (MCCB)	200	208- 240 VAC 60 Hz
	100- 1200	208- 480 VAC 60 Hz
Insulated Case (ICCB)	800- 4000	208- 480 VAC, 60 Hz

Transfer Switch Standard Features

Enclosed Contact Power Switching Units

- Service entrance automatic transfer switches incorporate an isolating mechanism and overcurrent protection on the utility supply, eliminating the need to have a separate, upstream utility source circuit breaker/disconnect switch.
- UL 1008 listed, file #58962
- IBC seismic certification available
- Fully enclosed silver alloy contacts provide high withstand rating.
- 3-cycle short circuit current withstand-tested in accordance with UL 1008
- Completely separate utility and generator set power switching units provide redundancy (no common parts) and are easy to service.
- Utility disconnect power switching units have overcurrent protection; generator disconnect is available with or without overcurrent protection:
  - Molded case circuit breakers (MCCB) include thermal-magnetic or electronic trip overcurrent protection (80% rated).
  - Molded case switches (MCSW) do not include overcurrent protection (100% rated) (available on generator disconnect only).
  - Insulated case circuit breakers (ICCB) include electronic trip overcurrent protection (100% rated).
  - Insulated case switches (ICSW) do not include overcurrent protection (100% rated) (available on generator disconnect only).
- Inherent stored-energy design prevents damage if manually switched while in service.
- Heavy duty brushless gear motor and operating mechanism provide mechanical interlocking and extreme long life with minimal maintenance.
- Safe manual operation permits easy operation even under adverse conditions.
- All mechanical and control devices are visible and readily accessible.
- Padlockable service disconnect control switch
- Status indicators
- Two-position control circuit isolation switch disconnects utility power to the transfer switch controller.
- Load shed (Forced transfer from Emergency to OFF). (Customer-supplied signal [contact closure] is required for the forced transfer to OFF function.)
- NEMA 1, 3R, 4X and 12 enclosures are available.

Service Disconnect Switch

- Service disconnect to OFF position
- Two-position switch with padlockable cover disconnects the normal and emergency sources.
- Controller display shows Service Disconnected and the NOT IN AUTO LED flashes.
- Lamp illuminates to indicate that the switch is in the DISCONNECT position.

EXHIBIT 'C'

Automatic Transfer Switch Controller

The Decision-Maker® MPAC 1500 Automatic Transfer Switch Controller is used on service entrance transfer switch models.

Decision-Maker® MPAC 1500 Controller

- LCD display, 4 lines x 20 characters, backlit
- Complete programming and viewing capability at the door using the keypad and LCD display
- LED indicators: Source available, transfer switch position, service required (fault), and “not in auto”
- Modbus communication is standard
- Programmable voltage and frequency pickup and dropout settings
- Programmable time delays
- Programmable generator exerciser
- Time-based load control
- Current-based load control (current sensing kit required)
- Two programmable inputs and two programmable outputs (one programmable input and one programmable output are used for factory connections on these models and are not available for customer connection)
- Up to four I/O extension modules available
- RS-485 communication standard
- Ethernet communication standard
- Three-source system
- Prime power

For more information about Decision-Maker® MPAC 1500 features and functions, see specification sheet G11- 128.

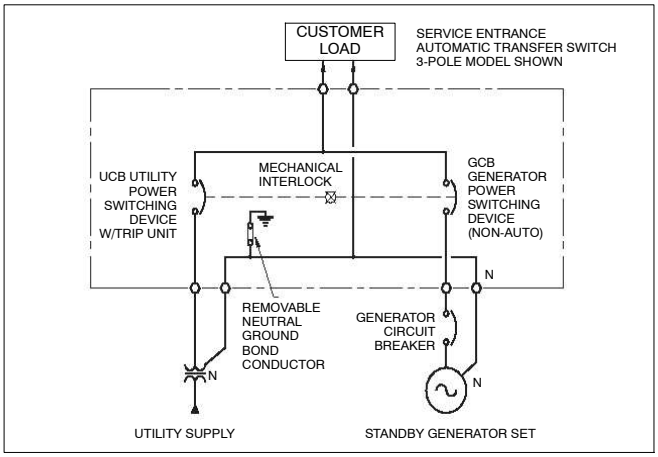
Ratings

Withstand Current Ratings in RMS Symmetrical Amperes *
(No upstream circuit breaker protection required)

Power Switching Device	Switch Rating, Amps	Voltage, Max.	Amps RMS @ 240 V	Amps RMS @ 480 V
Molded case	100	600	65,000	25,000
	150			
	200	**240**	100,000	NA
	250	600	65,000	65,000
	400	600	65,000	50,000
	600			
	800			
	1000			
	1200			
Insulated case	800	600	100,000	100,000
	1000			
	1200			
	1600			
	2000			
	2500			
	3000			
	4000			

* With molded case/insulated case switching devices equipped with integral overcurrent protection. (UL 1008 WCR)

Typical Single-Line Diagram



Application Data

Auxiliary Position-Indicating Contacts	
MCCB Models	Use programmable digital outputs
ICCB Models	3 Normal, 2 Emergency Rated 2.5 A @ 24/48 VDC, 6 A @ 480VAC

Environmental Specifications	
Operating Temperature	- 15°C to 50°C (5°F to 122°F)
Storage Temperature	- 20°C to 70°C (- 4°F to 158°F)
Humidity	95% noncondensing

EXHIBIT 'C'

Cable Sizes

Model	Amps	Cable Sizes, Al/Cu Wire		
		Circuit Breaker (per Phase)	Neutral	Ground
KEP, MCCB	100	(1) #14 - 1/0 AWG	(3) #14 - 2/0 AWG	(3) #14 - 1/0 AWG
	150	(2) #2 - 4/0 AWG		
	200	(1) #6 - 350 KCMIL	(3) #6 - 350 KCMIL	
	250			
	400	(2) 2/0 - 500 KCMIL	(6) 2/0 - 500 KCMIL	(3) #6 - 350 KCMIL
	600			
	800	(3) 2/0 - 500 KCMIL	(9) 2/0 - 500 KCMIL	
	1000 1200	(4) 4/0 - 500 KCMIL	(12) 4/0 - 500 KCMIL	(3) #4 - 600 KCMIL or (6) 1/0 - 250 KCMIL
KEP, ICCB	800	(3) 3/0 - 750 KCMIL	(9) 3/0 - 750 KCMIL	(3) #6 - 250 KCMIL
	1000	(4) 3/0 - 750 KCMIL	(12) 3/0 - 750 KCMIL	
	1200			
	1600	(5) 3/0 - 750 KCMIL	(15) 3/0 - 750 KCMIL	
	2000	(6) 3/0 - 750 KCMIL	(18) 3/0 - 750 KCMIL	
	2500	(8) 3/0 - 750 KCMIL	(24) 3/0 - 750 KCMIL	
	3000	(9) 3/0 - 750 KCMIL	(27) 3/0 - 750 KCMIL	
	4000	(12) 3/0 - 750 KCMIL	(36) 3/0 - 750 KCMIL	

Circuit Breaker Specifications

KEP Molded Case Circuit Breakers (MCCB)

Breaker			Utility Disconnect			Generator Disconnect (note that units with MCSW selected will not have a trip unit)		
Mfr	Amps	Model	Trip Unit	Type	Trip Unit Function	Trip Unit	Type	Trip Unit Function
ABB	100	Tmax Ts3	NI	BM/EL	TM	NI	BM/EL	TM
	150	Tmax Ts3						
	200	Tmax Ts3						
	250 2P/3P	Tmax T5	PR221	Electronic	LS/I	PR221	Electronic	LS/I
	250 4P	Isomax S5	PR211	Electronic	LI	PR211	Electronic	LI
	400	Tmax T6	PR221	Electronic	LS/I	PR221	Electronic	LS/I
	600	Tmax T6						
	800	Tmax T6						
	1000	Tmax T7	PR331/P	Electronic	LSIG	PR231/P		
	1200	Tmax T7						

NI = Non-interchangeable
TM = Thermal/Magnetic
BM/EL = Bimetal/Electromagnet
MCSW = Molded Case Switch

KEP Insulated Case Circuit Breakers (ICCB)

Breaker			Utility Disconnect			Generator Disconnect (note that units with ICSW selected will not have a trip unit)		
Mfr	Model	Amps	Trip Unit	Type	Trip Unit Function	Trip Unit	Type	Trip Unit Function
Schneider	NW	800	ML 5.0A	Electronic	LSI	ML 3.0	Electronic	LI
	NW	1000	ML 6.0A	Electronic	LSIG	ML 3.0	Electronic	LI
	NW	1200						
	NW	1600						
	NW	2000						
	NW	2500						
	NW	3000						
	NW	4000						

ICSW = Insulated Case Switch
ML = Micrologic

EXHIBIT 'C'

Weights and Dimensions

Note: Always use the transfer switch dimension drawing for planning and installation. Weights and dimensions may vary for different configurations. See your local distributor for dimension drawings.

Weights and dimensions are shown for NEMA type 1 enclosures. Consult the factory for other enclosure types.

Molded Case Circuit Breaker (MCCB) Models									
		Dimensions, mm (in.)				Weight, kg (lb.)			Dimension Drawing
Model	Amps	Poles	Height	Width	Depth	2P	3P	4P	
KEP, MCCB	100-150	2,3,4	914 (36.0)	725 (28.5)	462 (18.2)	68 (150)	68 (150)	68 (150)	ADV-8612
	200	2,3	914 (36.0)	725 (28.5)	462 (18.2)	68 (150)	68 (150)	N/A	
	250	2,3,4	914 (36.0)	725 (28.5)	462 (18.2)	81 (178)	81 (178)	81 (178)	
	400	2,3,4	1231 (48.4)	995 (39.2)	486 (19.1)	195 (430)	195 (430)	195 (430)	ADV-8614
	600-800	2,3,4	1231 (48.4)	995 (39.2)	486 (19.1)	200 (441)	200 (441)	200 (441)	
	1000-1200	3,4	2009 (79.1)	864 (34.0)	515 (20.3)	N/A	247 (545)	254 (560)	ADV-8996

Insulated Case Circuit Breaker (ICCB) Models							
			Dimensions, mm (in.)			Weight, kg (lb.)	Dimension Drawing
Model	Amps	Poles	Height	Width	Depth		
KEP, ICCB	800	3	2324 (91.5)	914 (36.0)	1219 (48.0)	544 (1200)	ADV-8618
		4	2324 (91.5)	914 (36.0)	1219 (48.0)	635 (1400)	
	1000-1200	3	2324 (91.5)	914 (36.0)	1219 (48.0)	553 (1220)	
		4	2324 (91.5)	914 (36.0)	1219 (48.0)	644 (1420)	
	1600	3	2324 (91.5)	914 (36.0)	1372 (54.0)	598 (1320)	
		4	2324 (91.5)	914 (36.0)	1372 (54.0)	625 (1380)	
	2000	3	2324 (91.5)	914 (36.0)	1372 (54.0)	607 (1340)	
		4	2324 (91.5)	914 (36.0)	1372 (54.0)	644 (1420)	
	2500	3	2324 (91.5)	914 (36.0)	1524 (60.0)	625 (1380)	
		4	2324 (91.5)	1067 (42.0)	1524 (60.0)	662 (1460)	
	3000	3	2324 (91.5)	914 (36.0)	1524 (60.0)	644 (1420)	
		4	2324 (91.5)	1067 (42.0)	1524 (60.0)	680 (1500)	
	4000	3	2324 (91.5)	1372 (54.0)	1524 (60.0)	907 (2000)	

Codes and Standards

The ATS meets or exceeds the requirements of the following specifications:

- EN61000-4-4 Fast Transient Immunity Severity Level 4
- EN61000-4-5 Surge Immunity Class 4 (voltage sensing and programmable inputs only)
- IEC Specifications for EMI/EMC Immunity:
  - CISPR 11, Radiated Emissions
  - IEC 1000-4-2, Electrostatic Discharge
  - IEC 1000-4-3, Radiated Electromagnetic Fields
  - IEC 1000-4-4, Electrical Fast Transients (Bursts)
  - IEC 1000-4-5, Surge Voltage
  - IEC 1000-4-6, Conducted RF Disturbances
  - IEC 1000-4-8, Magnetic Fields
  - IEC 1000-4-11, Voltage Dips and Interruptions
- IEC 60947-6-1, Low Voltage Switchgear and Control Gear; Multifunction Equipment; Automatic Transfer Switching Equipment
- IEEE Standard 446, IEEE Recommended Practice for Emergency and Standby Power Systems for Commercial and Industrial Applications
- IEEE 472 (ANSI C37.90A) Ring Wave Test
- NEMA Standard ICS 10- 2005, Electromechanical AC Transfer Switch Equipment
- NFPA 70, National Electrical Code
- NFPA 99, Essential Electrical Systems for Health Care Facilities
- NFPA 110, Emergency and Standby Power Systems
- Underwriters Laboratories UL 1008, Standard for Automatic Transfer Switches for Use in Emergency Standby Systems file #58962

EXHIBIT 'C'

Accessories

Accessories are available either factory-installed or as loose kits, unless otherwise noted.

❑ Digital Meter *

- Measure and display voltage, current, frequency, and power
- 35 programmable alarms
- LCD display, 67 x 62.5 mm (2.65 x 2.5 in.)
- Pushbutton operation
- Password- protected programming menus
- Two digital inputs
- Two digital outputs
- Two Form A relay outputs
- Serial port for optional network connections
- Data logging
- Factory- installed

* Meter kit not available on MCCB models with NEMA 3R enclosures.

❑ Heater, Anti-Condensation

- Hygrostat-controlled 120 VAC strip heater (customer-supplied voltage source required)
- 100 or 250 watts (sized for enclosure)
- Protective 15 Amp circuit breaker

❑ Literature Kits

- Production literature kit (one set of literature is included with each transfer switch)
- Overhaul literature kit

❑ RSA III Remote Serial Annunciator

- Monitors the generator set
- Monitors Normal and Emergency source status and connection
- Monitors ATS common alarm
- Allows remote testing of the ATS
- For more information, see specification sheet G6- 139.

❑ Seismic Certification

- Certification depends on application and geographic location. Contact your distributor for details.
- Available for the transfer switches and enclosures shown below:

ATS Type and Size		Enclosure, NEMA Type:			
Type	**Amps**	**1**	**3R**	**4X**	**12**
MCCB	100- 600			●	
MCCB	100- 1200	●	●		●
ICCB	800- 4000	●	●		

❑ Surge Protection Device (SPD)

- SPD available for the normal source supply
- Surge protection reduces transient voltages to harmless levels
- Protection modes: L-L / L-N / L-G / N-G
- Replaceable phase and neutral cartridges for service
- Frequency: 50- 60 Hz
- Operating Temperature Range: - 40 to 176°F (- 40 to 80°C)
- Remote contacts for customer-supplied status indicators:
  Contacts: 1 NO, 1 NC
  Min Load: 12VDC / 10 mA
  Max. Load: 250 VAC / 1 A
  Wire Size (max.): 16AWG
- Fuse protection: 30 amps / 600 V
- UL 1449, 3rd Edition for Type 2 applications
- IEC 61-643-1, 2nd Edition T2/11
- See additional specifications below

❑ Extended Warranties

- 2-year basic
- 5-year basic
- 5-year comprehensive
- 10-year major components

Additional Controller Accessories

See the controller specification sheet for more information.

❑ Accessory Modules

- Alarm Module
- External Battery Supply Module
- Input/Output Module
- High-Power Input/Output Module

❑ Current Sensing Kit

❑ Line-to-Neutral Voltage Monitoring

❑ Padlockable User Interface Cover

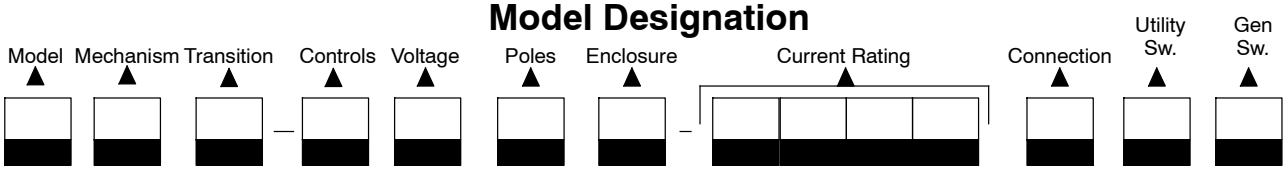
❑ Supervised Transfer Control Switch

SPD Specifications								
Nominal Voltage (V ±15%)	**Max. Discharge Current (kA)**	**Phase**	**Poles**	**UL VPR 3rd Ed (L-N/N-G/L-G) (kV)**	**Limiting Voltage, (L-N/N-G/L-G) (kV)**		**Short Circuit Withstand Current (kA)**	**Maximum Continuous Operating Voltage (VAC)**
					at 3kAmps	**at 10kAmp**		
240/120	40	Split	3	0.6 / 1.2 / 0.7	0.6 / 0.4 / 0.6	0.8 / 0.7 / 0.8	200	175 / 350
208/120	40	Wye	4	0.6 / 1.2 / 0.7	0.6 / 0.4 / 0.6	0.8 / 0.7 / 0.8	200	175 / 350
480/277	40	Wye	4	1.0 / 1.2 / 1.1	1.0 / 0.4 / 1.0	1.2 / 0.7 / 1.2	200	320 / 640
240/120	40	HLD	4	1.0 / 1.2 / 1.1	1.0 / 0.4 / 1.0	1.2 / 0.7 / 1.2	200	320 / 640
600/347	40	Wye	4	1.3 / 1.2 / 1.4	1.3 / 0.4 / 1.3	1.5 / 0.7 / 1.5	200	440 / 880

EXHIBIT 'C'

KOHLER CO., Kohler, Wisconsin 53044 USA
Phone 920-457-4441, Fax 920-459-1646
For the nearest sales and service outlet in the US and Canada, phone 1-800-544-2444
KOHLERPower.com

Model Designation



Record the transfer switch model designation in the boxes. The transfer switch model designation defines characteristics and ratings as explained below.

Sample Model Designation: KEP-DMTA-0400S-NK

Model

K: Kohler

Mechanism

E: Service Entrance Rated

Transition

P: Programmed

Controller

D: Decision-Maker® MPAC 1500, Automatic

Voltage/Frequency

C:	208 Volts/60 Hz	M:	480 Volts/60 Hz
F:	240 Volts/60 Hz	R:	220 Volts/60 Hz
K:	440 Volts/60 Hz		

Number of Poles/Wires

N: 2 Poles/3 Wires, Solid Neutral
T: 3 Poles/4 Wires, Solid Neutral
V: 4 Poles/4 Wires, Switched Neutral

Enclosure

A:	NEMA 1	C:	NEMA 3R
B:	NEMA 12	F:	NEMA 4X

Current, Amps

0100	0600	2000
0150	0800	2500
0200	1000	3000
0250	1200	4000
0400	1600	

Connections

S: Standard

Utility Switching Device

M: MCCB w/thermal magnetic trip 100- 200 A
N: MCCB w/electronic trip 250- 800 A
P: MCCB w/electronic trip and GF 1000-1200 A
R: ICCB w/electronic trip 800 A
T: ICCB w/electronic trip and GF 1000- 4000 A

Generator Switching Device

K: MCSW 100- 1200 A
M: MCCB w/thermal magnetic trip 100- 200 A
N: MCCB w/electronic trip 250- 1200 A
Q: ICSW 800- 4000 A
R: ICCB w/electronic trip 800- 4000 A

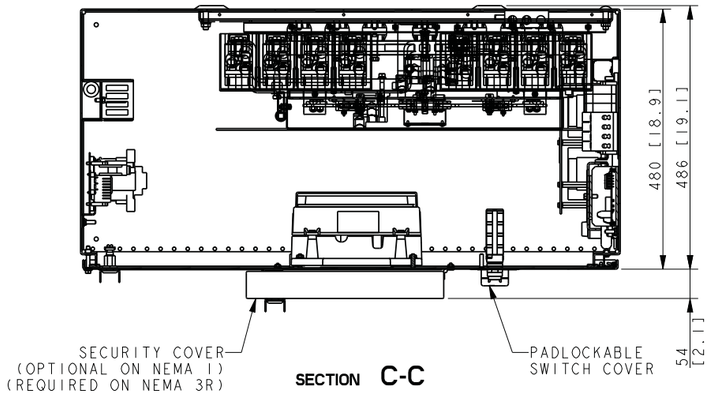
Note: Some selections are not available for every model. Contact your Kohler distributor for availability.

DISTRIBUTED BY:

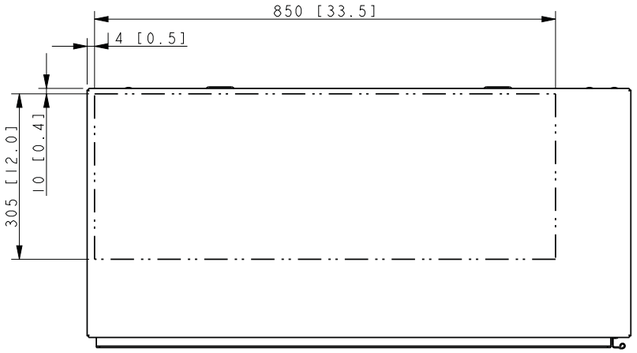
Availability is subject to change without notice. Kohler Co. reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever. Contact your local Kohler® generator distributor for availability.

EXHIBIT 'C'

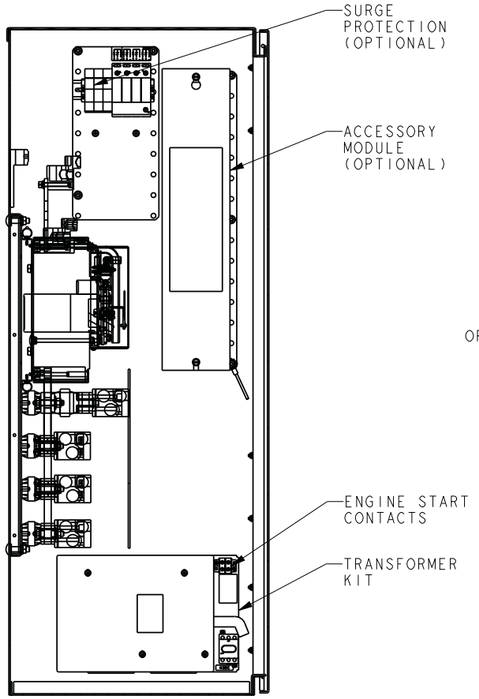
NOTES:
1. DIMENSION IN [ ] ARE INCHES.
2. FINISH:
   NEMA 1 & 3R: ANSI 49 GRAY
3. REFER TO OPERATOR'S MANUAL PRIOR TO INSTALLING SWITCH & OPERATION OF SWITCH.
4. OMIT CENTER POLE ON 2 POLE SWITCHES.
5. FOR SEISMIC CERTIFIED UNITS, REFER TO ADV-7456 AND INSTALLATION INSTRUCTIONS.



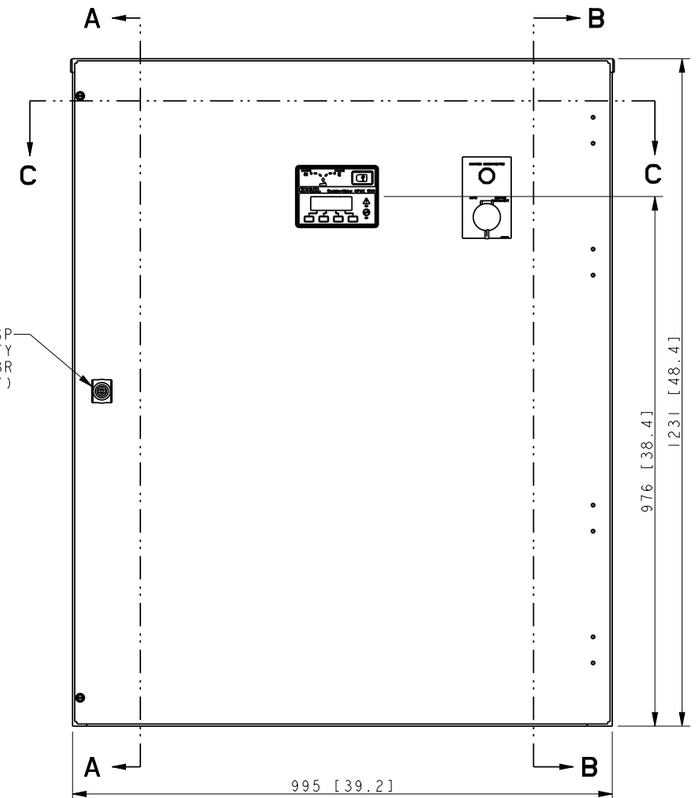
SECTION C-C



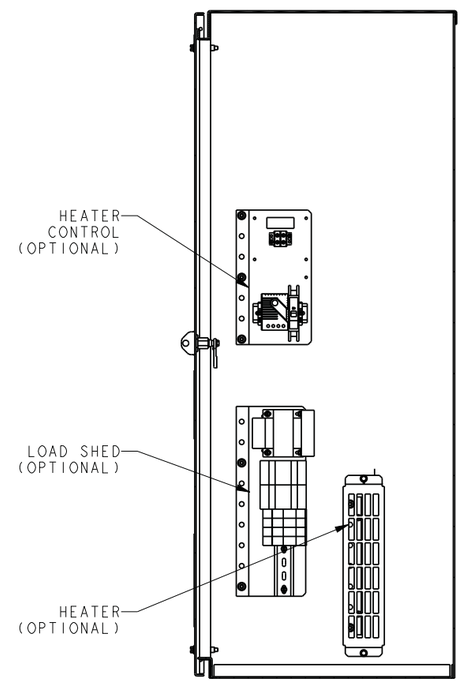
RECOMMENDED ENTRANCE AREA TOP & BOTTOM



SECTION B-B



NOTE:
ALLOW FOR MINIMUM DOOR SWING CLEARANCE OF 1032 [40.7] IN FRONT OF CABINET.



SECTION A-A

11112

REV	DATE	ON COMPOSITE DWGS, SEE PART NO. FOR REVISION LEVEL	BY
-	8-27-13	NEW DRAWING [CT54441]	BTW
A	1-14-15	VIEWS UPDATED; [CT112665]	BTW

UNLESS OTHERWISE SPECIFIED: 1) DIMENSIONS ARE IN MILLIMETERS 2) TOLERANCES ARE: X.XX ± 0.25, X.X ± 1.0, X ± 1.5, ANGLES ± 0° 30'. SURFACE FINISH MAX. THIRD ANGLE PROJECTION

APPROVALS		DATE
DRAWN	BTW	8-27-13
CHECKED	BTW	8-27-13
APPROVED	MTL	8-27-13

TITLE: DIMENSION PRINT

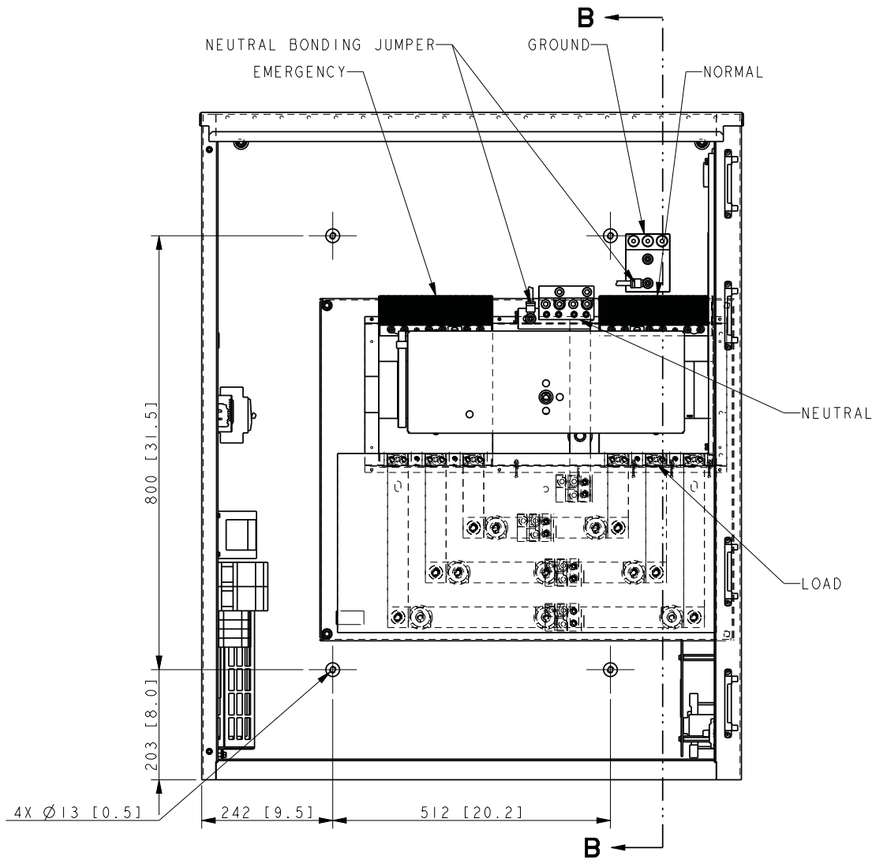
SCALE 0.20 | CAD NO. | SHEET 1 of 2

DWG NO. ADV-8614 | D

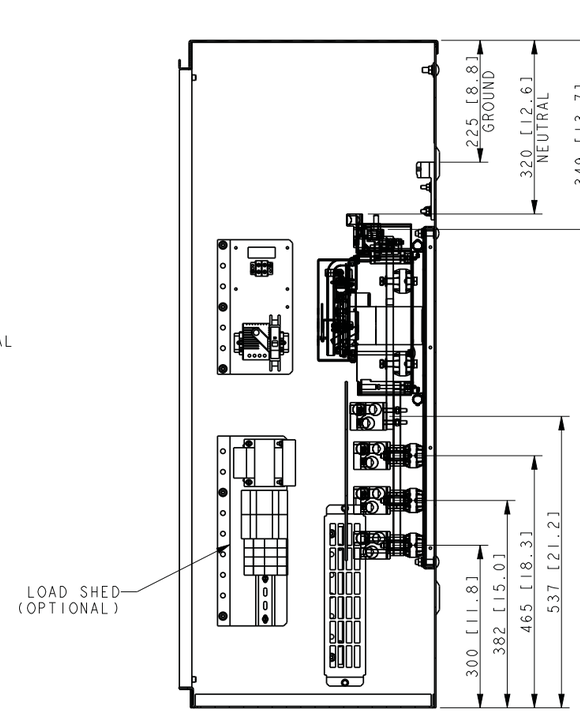
SEE ADV-8565 FOR FULL MODEL CODE DEFINITION

STYLE	MECHANISM	TRANSITION	MPAC LOGIC	VOLTS	POLES	NEUTRAL	ENCLOSURE	AMPS	CONNECTION
KEP MCCB	SERVICE ENT	PROGRAMMED	1500	208-480	2,3,4	SOLID,SW	1,3R	400,600,800	STANDARD

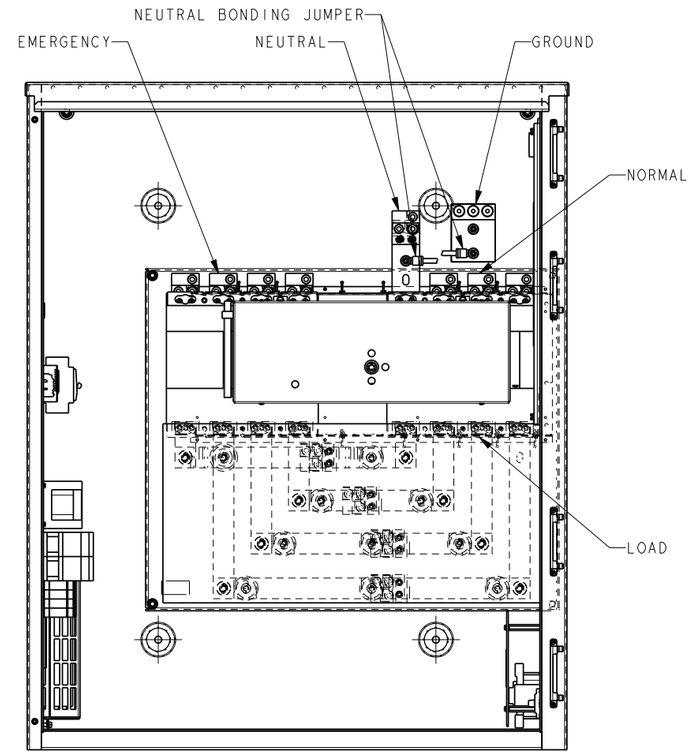
EXHIBIT 'C'



800 AMP 3 POLE SHOWN
(DOOR REMOVED TO SHOW INTERNAL COMPONENTS)
NOTE: OMIT CENTER POLE ON 2 POLES SWITCHES.



SECTION B-B



800 AMP 4 POLE SHOWN
(DOOR REMOVED TO SHOW INTERNAL COMPONENTS)

SEISMIC MOUNTING NOTE:
FOR SEISMIC CERTIFIED UNITS,
MOUNT WITH THE FOLLOWING HARDWARE:
WALL MOUNTED (STEEL)
Ø9.53 [.375] Dia. SAE GRADE 1/ ASTM A307 BOLTS.
WALL MOUNTED (CONCRETE)
Ø9.53 [.375] Dia. HILTI KWIK BOLT TZ-CS WITH MIN. EMBEDMENT 50.8 [2.00]; EDGE DISTANCE OF 101.6 [4.00] ON A 101.6 [4.00] THICK 4000 PSI CONDRETE WALL. HARDWARE TO COMPLY WITH SPECIFICATIONS ON ADV-7456.

SERVICE DISCONNECT BREAKERS ARE 80% RATED. CONTINUOUS LOAD CURRENT IS NOT TO EXCEED 80% OF BREAKER RATING.

SCREW TYPE TERMINALS FOR EXTERNAL POWER CONNECTIONS			
SWITCH RATING (AMPS)	RANGE OF AL/CU WIRE SIZE		
	CIRCUIT BREAKER PER PHASE	NEUTRAL	GROUND
400	(2) 2/0-500 KCMIL	(6) 2/0-500 KCMIL	(3) #6-350 KCMIL
600	(2) 2/0-500 KCMIL	(6) 2/0-500 KCMIL	(3) #6-350 KCMIL
800	(3) 2/0-500 KCMIL	(9) 2/0-500 KCMIL	(3) #6-350 KCMIL

APPROX. WEIGHTS KG (LBS)			
AMPS	2 POLE	3 POLE	4 POLE
400	195 [430]	195 [430]	195 [430]
600	200 [441]	200 [441]	200 [441]
800	200 [441]	200 [441]	200 [441]

REV	DATE	ON COMPOSITE DWGS, SEE PART NO. FOR REVISION LEVEL	BY
-	8-27-13	NEW DRAWING [CT54441]	BTW
A	1-14-15	SEE SHEET 1 [CT112665]	BTW

UNLESS OTHERWISE SPECIFIED: (1) DIMENSIONS ARE IN MILLIMETERS (2) TOLERANCES ARE: X.XX ± 0.25, X.X ± 1.0, X ± 1.5, ANGLES ± 0° 30' SURFACE FINISH MAX. THIRD ANGLE PROJECTION

APPROVALS		DATE
DRAWN	BTW	8-27-13
CHECKED	BTW	8-27-13
APPROVED	MTL	8-27-13

TITLE: DIMENSION PRINT
SCALE 0.20 | CAD NO. | SHEET 2 of 2
DWG NO. ADV-8614 | D

EXHIBIT 'C'

B. Sketches

EXHIBIT 'C'

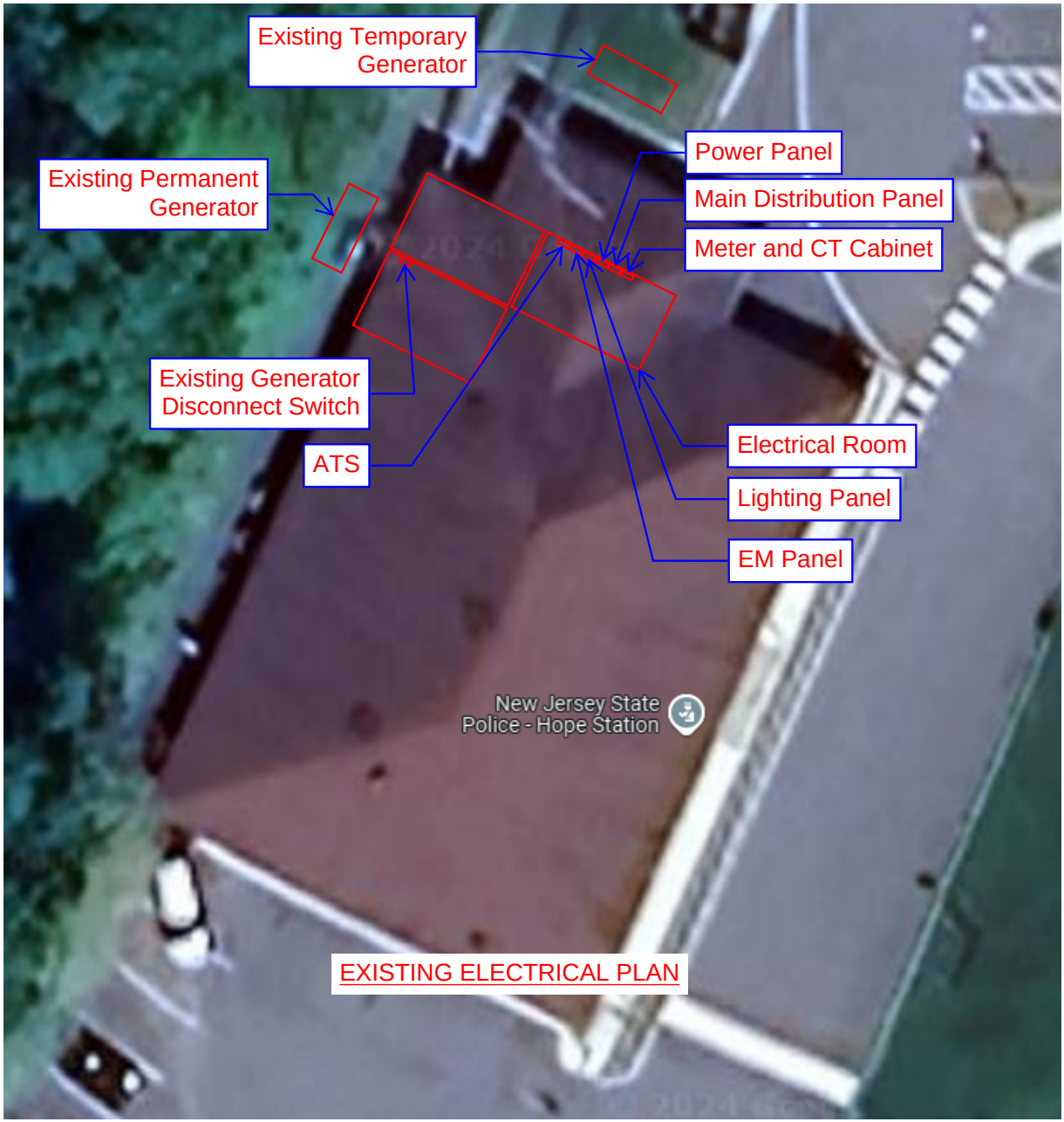

Existing Temporary Generator
Existing Permanent Generator
Power Panel
Main Distribution Panel
Meter and CT Cabinet
Existing Generator Disconnect Switch
ATS
Electrical Room
Lighting Panel
EM Panel
New Jersey State Police - Hope Station
EXISTING ELECTRICAL PLAN

EXHIBIT 'C'

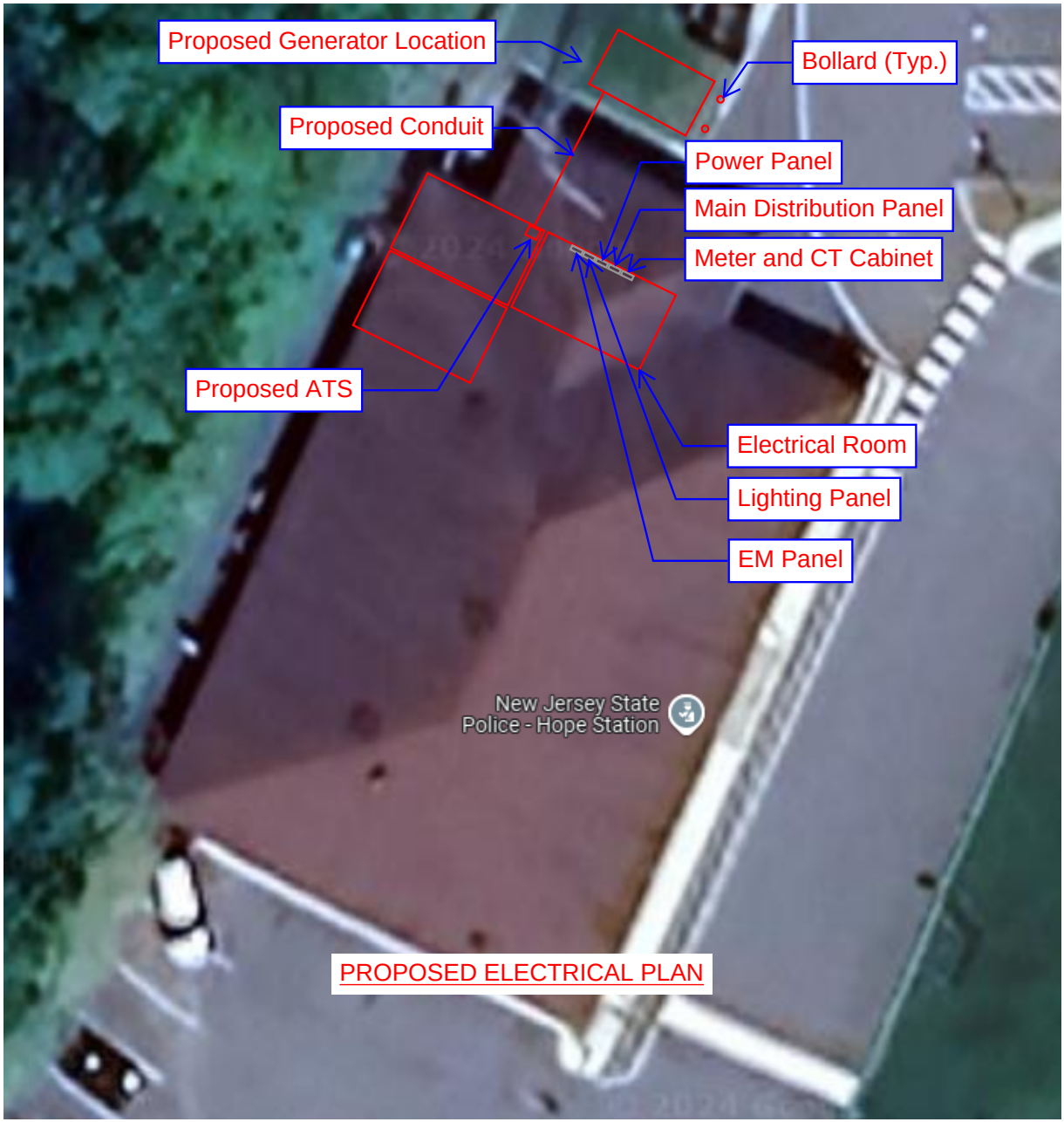

Proposed Generator Location
Bollard (Typ.)
Proposed Conduit
Power Panel
Main Distribution Panel
Meter and CT Cabinet
Proposed ATS
Electrical Room
Lighting Panel
EM Panel
New Jersey State Police - Hope Station
PROPOSED ELECTRICAL PLAN

EXHIBIT 'C'

C. Construction Cost Estimate

EXHIBIT 'C'

Date:10/30/24

COST ESTIMATE

Client: New Jersey State Police
Project: Generator Upgrade
Discipline : **Electrical**

Description: Hope Station
Prepared By: IB, EJC

Item #	Description	Quantity		Unit Price $		Total $		Total
		Amt	Unit	Material	Labor	Material	Labor	
1	Demolition	1	LS	$ -	$ 5,000	$ -	$ 5,000	$ 5,000
2	Mobilization	1	Ea.	$ -	$ 30,000	$ -	$ 30,000	$ 30,000
3	Excavation and Backfill	100	LF	$ 4	$ 30	$ 400	$ 3,000	$ 3,400
4	3/4" Conduit	200	LF	$ 5	$ 9	$ 1,000	$ 1,800	$ 2,800
5	1" Conduit	200	LF	$ 8	$ 11	$ 1,600	$ 2,200	$ 3,800
6	4" Conduit	150	LF	$ 50	$ 30	$ 7,500	$ 4,500	$ 12,000
7	Wiring #18 TP	25	CLF	$ 310	$ 85	$ 7,750	$ 2,125	$ 9,875
8	Wiring #1/0	4	CLF	$ 320	$ 174	$ 1,280	$ 696	$ 1,976
9	Wiring #600kcmil	16	CLF	$ 2,100	$ 440	$ 33,600	$ 7,040	$ 40,640
10	Diesel Generator and ATS	1	Ea.	$ 200,000	$ 20,000	$ 200,000	$ 20,000	$ 220,000
11	Ground Rod	6	Ea.	$ 50	$ 80	$ 300	$ 480	$ 780
12	Bare Copper Ground Wire	1	CLF	$ 115	$ 63	$ 115	$ 63	$ 178
13	Concrete Pad	2	CY	$ 1,800	$ 1,850	$ 3,600	$ 3,700	$ 7,300
14	Bollards	2	Ea.	$ 120	$ 600	$ 240	$ 1,200	$ 1,440
15	Miscellaneous Supplies	1	LS	$ 5,000	$ 1,200	$ 5,000	$ 1,200	$ 6,200
16	Testing	1	LS	$ -	$ 1,200	$ -	$ 1,200	$ 1,200
17	Programming	1	LS	$ -	$ 3,600	$ -	$ 3,600	$ 3,600
	SUB-TOTAL					**$ 262,385**	**$ 87,804**	**$ 350,189**
							Overhead and Profit (20%)	$ 70,038
							Estimated Design Fee	$ 120,000
							Estimated Construction Administration	$ 30,000
							BUDGETARY COST	**$ 570,227**

EXHIBIT 'C'

February 7, 1997
Rev.: January 29, 2002

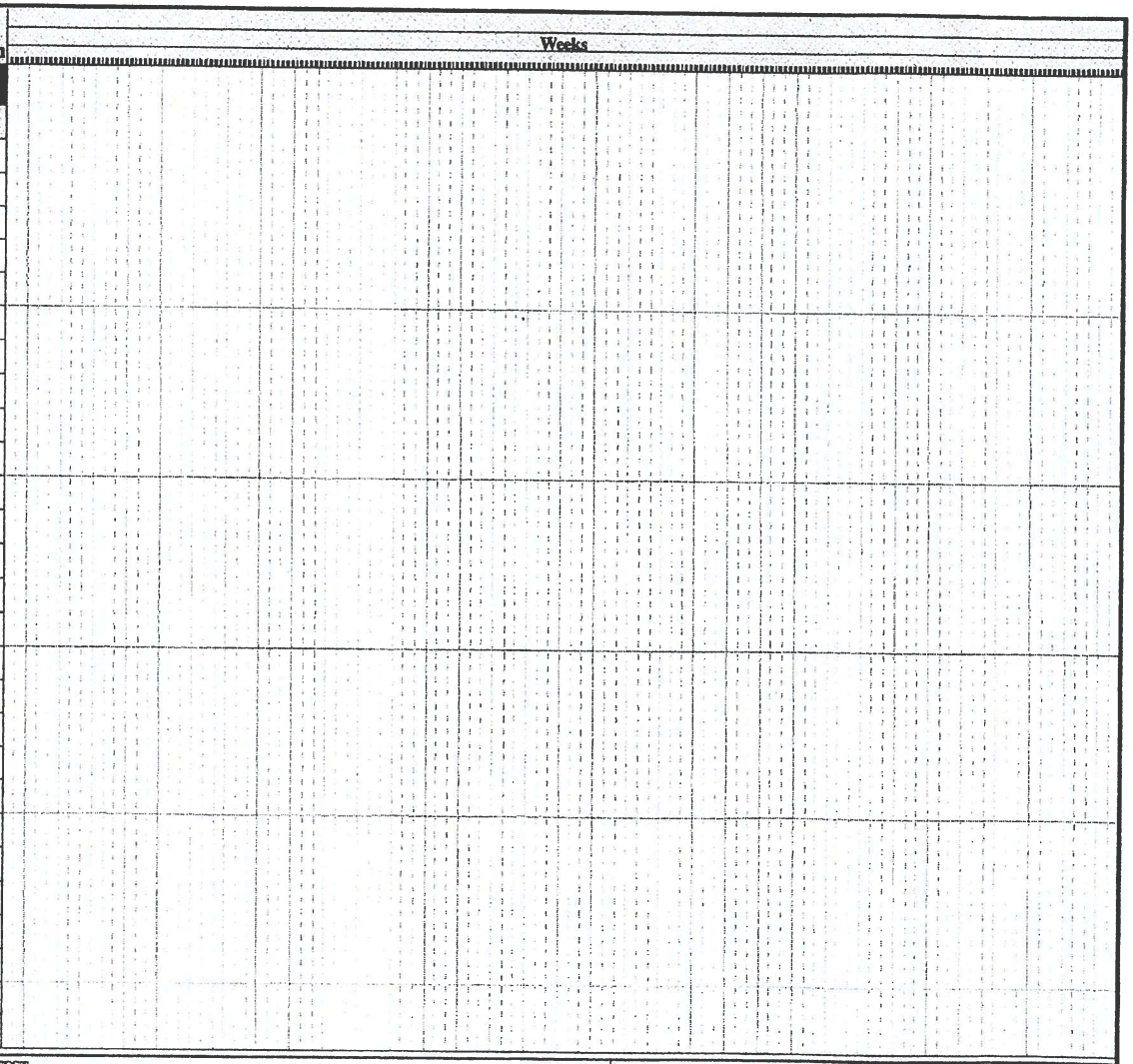
Responsible Group Code Table

The codes below are used in the schedule field "GRP" that identifies the group responsible for the activity. The table consists of groups in the Division of Property Management & Construction (DPMC), as well as groups outside of the DPMC that have responsibility for specific activities on a project that could delay the project if not completed in the time specified. For reporting purposes, the groups within the DPMC have been defined to the supervisory level of management (i.e., third level of management, the level below the Associate Director) to identify the "functional group" responsible for the activity.

CODE	DESCRIPTION	REPORTS TO ASSOCIATE DIRECTOR OF:
CM	Contract Management Group	Contract Management
CA	Client Agency	N/A
CSP	Consultant Selection and Prequalification Group	Technical Services
A/E	Architect/Engineer	N/A
PR	Plan Review Group	Technical Services
CP	Construction Procurement	Planning & Administration
CON	Construction Contractor	N/A
FM	Financial Management Group	Planning & Administration
OEU	Office of Energy and Utility Management	N/A
PD	Project Development Group	Planning & Administration

EXHIBIT 'A'

Activity ID	Description	Rspn
<PROJ>		
Design		
CV3001	Schedule/Conduct Predesign/Project Kick-Off Mtg.	CM
CV3020	Prepare Program Phase Submittal	AE
CV3021	Distribute Program Submittal for Review	CM
CV3027	Prepare & Submit Project Cost Analysis (DPMC-38)	CM
CV3022	Review & Approve Program Submittal	CA
CV3023	Review & Approve Program Submittal	PR
CV3024	Review & Approve Program Submittal	CM
CV3025	Consolidate & Return Program Submittal Comments	CM
CV3030	Prepare Schematic Phase Submittal	AE
CV3031	Distribute Schematic Submittal for Review	CM
CV3037	Prepare & Submit Project Cost Analysis (DPMC-38)	CM
CV3032	Review & Approve Schematic Submittal	CA
CV3033	Review & Approve Schematic Submittal	PR
CV3034	Review & Approve Schematic Submittal	CM
CV3035	Consolidate & Return Schematic Submittal Comment	CM
CV3040	Prepare Design Development Phase Submittal	AE
CV3041	Distribute D. D. Submittal for Review	CM
CV3047	Prepare & Submit Project Cost Analysis (DPMC-38)	CM
CV3042	Review & Approve Design Development Submittal	CA
CV3043	Review & Approve Design Development Submittal	PR
CV3044	Review & Approve Design Development Submittal	CM
CV3045	Consolidate & Return D.D. Submittal Comments	CM
CV3050	Prepare Final Design Phase Submittal	AE
CV3051	Distribute Final Design Submittal for Review	CM
CV3052	Review & Approve Final Design Submittal	CA
CV3053	Review & Approve Final Design Submittal	PR
CV3054	Review Final Design Submitl for Constructability	OCS



NOTE:
Refer to section "IV Project Schedule" of the Scope of Work for contract phase durations.

DBCA - TEST

Sheet 1 of 3

Bureau of Design & Construction Services

EXHIBIT 'A'

Activity ID	Description	Rspn	Weeks
CV3055	Review & Approve Final Design Submittal	CM	
CV3056	Consolidate & Return Final Design Comments	CM	
CV3060	Prepare & Submit Permit Application Documents	AE	
CV3068	Prepare & Submit Bidding Cost Analysis (DPMC-38)	CM	
Plan Review-Permit Acquisition			
CV4001	Review Constr. Documents & Secure UCC Permit	PR	
CV4010	Provide Funding for Construction Contracts	CA	
CV4020	Secure Bid Clearance	CM	
Advertise-Bid-Award			
CV5001	Advertise Project & Bid Construction Contracts	CP	
CV5010	Open Construction Bids	CP	
CV5011	Evaluate Bids & Prep. Recommendation for Award	CM	
CV5012	Evaluate Bids & Prep. Recommendation for Award	AE	
CV5014	Complete Recommendation for Award	CP	
CV5020	Award Construction Contracts/Issue NTP	CP	
Construction			
CV6000	Project Construction Start/Issue NTP	CM	
CV6001	Contract Start/Contract Work (25%) Complete	CON	
CV6002	Preconstruction Meeting	CM	
CV6003	Begin Preconstruction Submittals	CON	
CV6004	Longest Lead Procurement Item Ordered	CON	
CV6005	Lead Time for Longest Lead Procurement Item	CON	
CV6006	Prepare & Submit Shop Drawings	CON	
CV6007	Complete Construction Submittals	CON	
CV6011	Roughing Work Start	CON	
CV6012	Perform Roughing Work	CON	
CV6010	Contract Work (50%+) Complete	CON	
CV6013	Longest Lead Procurement Item Delivered	CON	
CV6020	Contract Work (75%) Complete	CON	

NOTE:
Refer to section "IV Project Schedule" of the Scope of Work for contract phase durations.

DBCA - TEST

Sheet 2 of 3

Bureau of Design & Construction Services

EXHIBIT 'A'

Activity ID	Description	Rspn	Weeks
CV6014	Roughing Work Complete	CON	
CV6021	Interior Finishes Start	CON	
CV6022	Install Interior Finishes	CON	
CV6030	Contract Work to Substantial Completion	CON	
CV6031	Substantial Completion Declared	CM	
CV6075	Complete Deferred Punch List/Seasonal Activities	CON	
CV6079	Project Construction Complete	CM	
CV6080	Close Out Construction Contracts	CM	
CV6089	Construction Contracts Complete	CM	
CV6090	Close Out A/E Contract	CM	
CV6092	Project Completion Declared	CM	

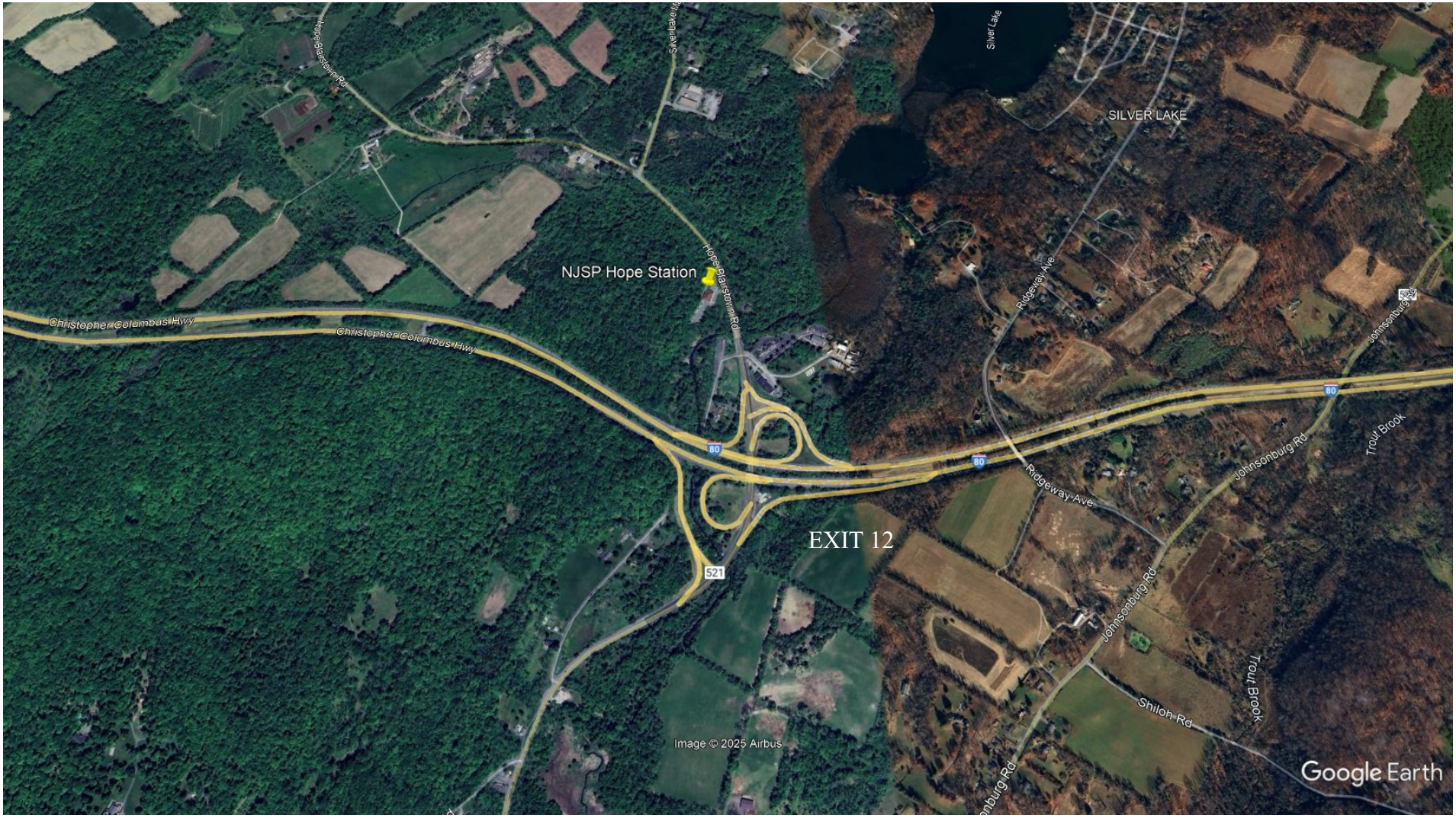
NOTE:
Refer to section "IV Project Schedule" of the Scope of Work for contract phase durations.

DBCA - TEST

Sheet 3 of 3

Bureau of Design & Construction Services

EXHIBIT 'A'



Project Site Location Map

New Jersey State Police Hope Station

EXHIBIT ‘B’

MOTT MACDONALD

New Jersey State Police - Hope Station Generator Replacement Evaluation Report

November 2024

EXHIBIT 'C'

Mott MacDonald
111 Wood Avenue South
Iselin
NJ 08830-4112
United States of America

T +1 (800) 832 3272
mottmac.com

New Jersey State Police

New Jersey State Police - Hope Station Generator Replacement Evaluation Report

November 2024

EXHIBIT 'C'

Issue and revision record

Revision	Date	Originator	Checker	Approver	Description
0	11/20/24	E. Conticchio	I. Bondar	I. Bondar	Preliminary Engineering Evaluation

Document reference: 507110919-001

Information class: Standard

EXHIBIT 'C'

Contents

EXHIBIT 'C'

Executive summary

The New Jersey State Police (NJSP from herein) has contracted Mott MacDonald to conduct an engineering assessment for the replacement of the existing generator at NJSP Hope Station. A site survey was conducted by Mott MacDonald on October 25, 2024 and electrical distribution information was collected at this time. The following report outlines the existing generator conditions, design discussion, and recommendations for the replacement of the existing generator. This report is not to be used for construction purposes. A detailed design process based on the information within this document and follow-up site surveys by all required disciplines is required to produce construction documentation.

1 Existing Conditions

The existing permanent diesel generator is located on the northwest corner of the building, manufactured by Cumins. It has a belly tank and a weatherproof enclosure and sits on a small concrete pad. NJSP has reported that this generator is no longer functioning.

As the existing permanent diesel generator does not function, the NJSP has installed a temporary generator setup to provide power for various life safety loads, among other loads. The temporary generator is a Generac MMG75D diesel genset mounted on a trailer on the northeast corner of the building. Refer to photos below for existing conditions and appendix B for a sketch of the site showing the locations of the generators.

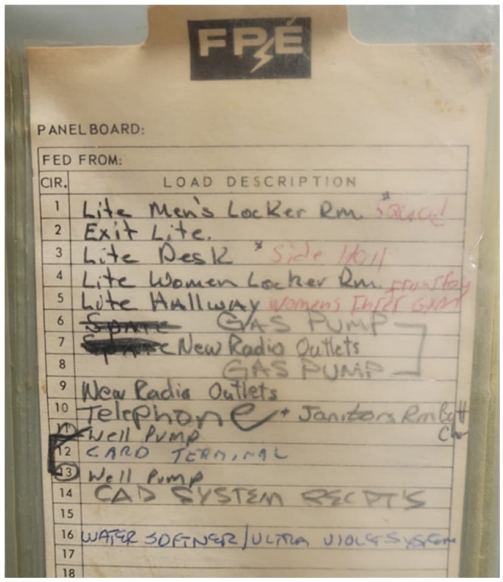
Existing Permanent Generator

Temporary Generator

The transfer switch is located in the electrical room and is fed from a disconnect switch in the room adjacent to the electrical room which is subsequently fed by the temporary generator. The transfer switch feeds power panelboard “EM Panel” which supplies power to life safety and

EXHIBIT 'C'

critical loads. Refer to photo below for existing conditions and appendix B for a sketch of the site showing the locations of the switch and emergency panel schedule.



Transfer Switch, Disconnect Switch and EM Panel Schedule

The service for the station enters the electrical room and feeds the Main Distribution Panelboard (MDP from herein) which sits next to a CT Cabinet and meter. There are three branch circuit panels (including EM Panel) in the electrical room as well. All panel ratings as follows:

- MDP 208/120V, 3 Phase, 4 Wire, 600A
- Power Panel 208/120V, 3 Phase, 4 Wire, 225A via circuit breaker in MDP

EXHIBIT 'C'

- Lighting Panel 208/120V, 3 Phase, 4 Wire, 225A via circuit breaker in MDP
- EM Panel 120/240V, 1 Phase, 3 Wire, 100A via circuit breaker in Power Panel

EXHIBIT 'C'

2 Design Discussion

The intent of this portion is to discuss the work required to remove the existing generator and replace it with a unit sized for the entire station.

2.1 Generator

Demolition Work

The existing generators will be disconnected and removed. There should be no concrete removal involved. The existing transfer switch in the electrical room and existing disconnect switch in the room adjacent to the electrical room will be disconnected and removed as well.

All existing power wiring between the existing generators, existing transfer switch, disconnect switch and existing EM Panel will be disconnected and removed.

All conduit located exterior to the building from the generator to the building will be disconnected and removed. All penetration points into the building shall be capped.

Installation Work

First thing required will be a new concrete pad in the same location as the existing temporary generator. After the pad is poured, a new diesel generator will be installed on the pad. The proposed generator will be an emergency diesel generator sized between 250kW and 350kW with a subbase belly tank. Refer to Appendix A for cut sheets related the new generator. The generator shall be capable of providing power within 10 seconds of utility loss.

Access panels for the new generator will require 36” of clearance. The distance between the new generator and the building wall will require 18” of clearance. The approximate overall dimensions of the new generator with its enclosure 162”L x 52”W x 74”H. This is based on a 250kW generator and is subject to change during the design process.

New conduit will be provided from the generator to the building and new penetrations will be required. These penetrations will be fire-stopped.

A new ATS will be provided in the room directly adjacent to the electrical room. The preliminary ATS is a s ervice entrance unit with a NEMA 12 enclosure. Refer to Appendix A for cut sheets related to the new ATS. Approximate dimensions of the new ATS are 37”W x 72”H x 17”D. This is based on a 600A ATS and is subject to change during the design process. The service feeder will be intercepted at the entrance of the electrical room and rerouted to the ATS. Likewise, new conduit and wiring will be provided between the generator and the ATS. Lastly, conduit and wiring will be provided between the ATS and existing MDP, providing power for the entire station.

Conduits are to be installed first with pull wires. Once all conduits are installed, the wiring can be pulled through to the new equipment and be connected for a complete standby system. Wiring will be extended, type to match existing, where required. Control wiring will be provided as new between the generator set and the ATS utilizing existing and new conduit. The generator set and enclosure will be grounded. This method will reduce the station’s downtime.

2.2 Station Downtime

Due to the nature of these proposed solutions, the building will experience some mandatory downtime. With there being work involving the existing service feeders, the service disconnect will have to be de-energized temporarily to allow for safe work inside the building. At a bare minimum, the generator and ATS should be brought to the site, tested, and approved before any work is done with the existing service feeders. The ATS should be installed first and the normal connection should be made so as to provide power to the building with minimum downtime. Afterwards, the demolition of the existing generator and installation of new generator can begin while normal power is available to the building. There will be a period of time when the building will not have standby power. The estimated downtime for normal power is approximately one to two days. The estimated downtime for standby power is approximately one week.

A. Cut Sheets

EXHIBIT 'C'

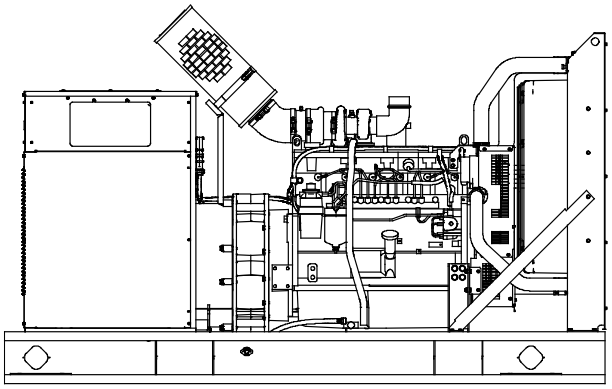
Industrial Generator Set - 250REOZJE

208-600 V **Diesel**

Tier 3 EPA-Certified for Stationary Emergency Applications

Ratings Range

		60 Hz
Standby:	**kW**	230-255
	kVA	230-319
Prime:	**kW**	210-230
	kVA	210-288



Standard Features

- Rehlko provides one-source responsibility for the generating system and accessories.
- Approved for use with certified renewable Hydrotreated Vegetable Oil (HVO) / Renewable Diesel (RD) fuels compliant with EN15940 / ASTM D975.
- The generator set and its components are prototype-tested, factory-built, and production-tested.
- The 60 Hz generator set offers a UL 2200 listing.
- The generator set accepts rated load in one step.
- The 60 Hz emergency generator set meets NFPA 110, Level 1, when equipped with the necessary accessories and installed per NFPA standards.
- A one-year limited warranty covers all generator set systems and components. Two- and five-year extended limited warranties are also available.
- Alternator features:
  - The unique Fast-Response® II excitation system delivers excellent voltage response and short-circuit capability using a permanent magnet (PM)-excited alternator.
  - The brushless, rotating-field alternator has broadrange reconnectability.
- Other features:
  - Rehlko designed controllers for one-source system integration and remote communication. See Controllers on page 3.
  - The low coolant level shutdown prevents overheating (standard on radiator models only).
  - Integral vibration isolation eliminates the need for under-unit vibration spring isolators.
- Mount up to four circuit breakers to allow circuit protection of selected priority loads.

Generator Set Ratings

				130°C Rise Standby Rating		105°C Rise Prime Rating	
Alternator	**Voltage**	**Ph**	**Hz**	**kW/kVA**	**Amps**	**kW/kVA**	**Amps**
4UA10	120/208	3	60	250/313	867	225/281	781
	127/220	3	60	250/313	820	225/281	738
	120/240	3	60	250/313	752	225/281	677
	139/240	3	60	250/313	752	225/281	677
	220/380	3	60	250/313	475	225/281	427
	240/416	3	60	250/313	434	225/281	390
	277/480	3	60	250/313	376	225/281	338
	347/600	3	60	250/313	301	225/281	271
4UA13	120/208	3	60	255/319	885	230/288	798
	127/220	3	60	255/319	837	230/288	754
	120/240	3	60	255/319	767	230/288	692
	120/240	1	60	230/230	958	210/210	875
	139/240	3	60	255/319	767	230/288	692
	220/380	3	60	255/319	484	230/288	437
	240/416	3	60	255/319	442	230/288	399
	277/480	3	60	255/319	383	230/288	346
	347/600	3	60	255/319	307	230/288	277

RATINGS: All three-phase units are rated at 0.8 power factor. All single-phase units are rated at 1.0 power factor. ***Standby Ratings:*** The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. ***Prime Power Ratings:*** At varying load, the number of generator set operating hours is unlimited. A 10% overload capacity is available for one hour in twelve. Ratings are in accordance with ISO-8528-1 and ISO-3046-1. For limited running time and continuous ratings, consult the factory. Obtain technical information bulletin (TIB-101) for ratings guidelines, complete ratings definitions, and site condition derates. The generator set manufacturer reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

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200 Twin Oaks Road, Kohler, WI 53044 USA
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EXHIBIT 'C'

Alternator Specifications

Specifications		Alternator
Type		4-Pole, Rotating-Field
Exciter type		Brushless, Permanent-Magnet
Leads: quantity, type		12, Reconnectable
Voltage regulator		Solid State, Volts/Hz
Insulation:		NEMA MG1
Material		Class H
Temperature rise		130°C Standby
Bearing: quantity, type		1, Sealed
Coupling		Flexible Disc
Amortisseur windings		Full
Voltage regulation, no-load to full-load		Controller Dependent
One-step load acceptance		100% of Rating
Unbalanced load capability		100% of Rated Standby Current
Peak motor starting kVA:		(35% dip for voltages below)
480 V	4UA10 (12 lead)	785
480 V	4UA13 (12 lead)	960

- NEMA MG1, IEEE, and ANSI standards compliance for temperature rise and motor starting.
- Sustained short-circuit current of up to 300% of the rated current for up to 10 seconds.
- Sustained short-circuit current enabling downstream circuit breakers to trip without collapsing the alternator field.
- Self-ventilated and dripproof construction.
- Windings are vacuum-impregnated with epoxy varnish for dependability and long life.
- Superior voltage waveform from a two-thirds pitch stator and skewed rotor.
- Fast-Response® II brushless alternator with brushless exciter for excellent load response.

Application Data

Engine

Engine Specification	
Engine manufacturer	John Deere
Engine model	6090HF484B
Engine type	4-Cycle, Turbocharged, Charge Air-Cooled
Cylinder arrangement	6, Inline
Displacement, L (cu. in.)	9.0 (548)
Bore and stroke, mm (in.)	118.4 x 136 (4.66 x 5.35)
Compression ratio	16.0:1
Piston speed, m/min. (ft./min.)	457 (1500)
Main bearings: quantity, type	7, Replaceable Insert
Rated rpm	1800
Max. power at rated rpm, kWm (BHP)	287 (385)
Cylinder head material	Cast Iron
Crankshaft material	Forged Steel
Valve material	
Intake	Chromium-Silicone Steel
Exhaust	Stainless Steel
Governor: type, make/model	JDEC Electronic L14 Denso HP4
Frequency regulation, no-load to full-load	Isochronous
Frequency regulation, steady state	±0.25%
Frequency	Fixed
Air cleaner type, all models	Dry

Exhaust

Exhaust System	
Exhaust manifold type	Dry
Exhaust flow at rated kW, m^3/min. (cfm)	54.1 (1911)
Exhaust temperature at rated kW, dry exhaust, °C (°F)	625 (1157)
Maximum allowable back pressure, kPa (in. Hg)	Min. 0 (0) Max. 7.5 (2.2)
Engine exhaust outlet size, mm (in.)	98 (3.86)

Engine Electrical

Engine Electrical System	
Battery charging alternator:	24 Volt
Ground (negative/positive)	Negative
Volts (DC)	24
Ampere rating	60
Starter motor rated voltage (DC)	24
Battery, recommended cold cranking amps (CCA):	
Qty., CCA rating each	Two, 925
Battery voltage (DC)	12

Fuel

Fuel System	
Fuel supply line, min. ID, mm (in.)	11 (0.44)
Fuel return line, min. ID, mm (in.)	6.0 (0.25)
Max. lift, fuel pump: type, m (ft.)	Electronic, 3 (10)
Max. fuel flow, Lph (gph)	240 (63.4)
Max. return line restriction, kPa (in. Hg)	20 (5.9)
Fuel prime pump	Electronic
Fuel filter	
Secondary	2 Microns @ 98% Efficiency
Primary	10 Microns
Water Separator	Yes
Recommended fuel	#2 Diesel / HVO / RD

Lubrication

Lubricating System	
Type	Full Pressure
Oil pan capacity, L (qt.) §	32.5 (34.4)
Oil pan capacity with filter, L (qt.) §	33.4 (35.3)
Oil filter: quantity, type §	1, Cartridge
Oil cooler	Water-Cooled

§ Rehlko recommends the use of Rehlko Genuine oil and filters.

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EXHIBIT 'C'

Application Data

Cooling

Radiator System	
Ambient temperature, °C (°F)*	50 (122)
Engine jacket water capacity, L (gal.)	16 (4.25)
Radiator system capacity, including engine, L (gal.)	36 (9.5)
Engine jacket water flow, Lpm (gpm)	265 (70)
Heat rejected to cooling water at rated kW, dry exhaust, kW (Btu/min.)	97 (5521)
Heat rejected to air charge cooler at rated kW, dry exhaust, kW (Btu/min.)	70.5 (4013)
Water pump type	Centrifugal
Fan diameter, including blades, mm (in.)	863.6 (34.0)
Fan, kWm (HP)	9.0 (12.1)
Max. restriction of cooling air, intake and discharge side of radiator, kPa (in. H_2O)	0.125 (0.5)

* Enclosure with internal silencer reduces ambient temperature capability by 5°C (9°F).

Operation Requirements

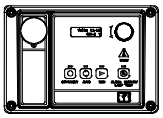
Air Requirements	
Radiator-cooled cooling air, m^3/min. (scfm)†	396.4 (14000)
Combustion air, m^3/min. (cfm)	21.8 (770)
Heat rejected to ambient air:	
Engine, kW (Btu/min.)	53.8 (3060)
Alternator, kW (Btu/min.)	20.6 (1170)

† Air density = 1.20 kg/m^3 (0.075 lbm/ft^3)

Fuel Consumption‡	
Diesel, Lph (gph) at % load	**Standby Rating**
100%	66.5 (17.6)
75%	50.4 (13.3)
50%	35.0 (9.2)
25%	20.5 (5.4)
Diesel, Lph (gph) at % load	**Prime Rating**
100%	59.1 (15.6)
75%	45.3 (12.0)
50%	31.6 (8.3)
25%	18.4 (4.9)

‡ Volumetric Fuel consumption is up to 4% higher when using HVO/RD than #2 ULSD.

Controllers



APM402 Controller

Provides advanced control, system monitoring, and system diagnostics for optimum performance and compatibility.

- Digital display and menu control provide easy local data access
- Measurements are selectable in metric or English units
- Remote communication thru a PC via network or serial configuration
- Controller supports Modbus® protocol
- Integrated hybrid voltage regulator with ±0.5% regulation
- Built-in alternator thermal overload protection
- NFPA 110 Level 1 capability

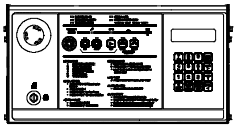
Refer to G6-161 for additional controller features and accessories.

APM603 Controller

Provides advanced control, system monitoring, and system diagnostics for optimum performance and compatibility.

- 7-inch graphic display with touch screen and menu control provides easy local data access
- Measurements are selectable in metric or English units
- Paralleling capability to control up to 8 generators on an isolated bus with first-on logic, synchronizer, kW and kVAR load sharing, and protective relays
  Note: Parallel with other APM603 controllers only
- Generator management to turn paralleled generators off and on as required by load demand
- Load management to connect and disconnect loads as required
- Controller supports Modbus® RTU, Modbus® TCP, SNMP and BACnet®
- Integrated voltage regulator with ±0.25% regulation
- Built-in alternator thermal overload protection
- UL-listed overcurrent protective device
- NFPA 110 Level 1 capability

Refer to G6-162 for additional controller features and accessories.



Decision-Maker® 6000 Paralleling Controller

Provides advanced control, system monitoring, and system diagnostics with remote monitoring capabilities for paralleling multiple generator sets.

- Paralleling capability to control up to 8 generators on an isolated bus with first-on logic, synchronizer, kW and kVAR load sharing, and protective relays
  Note: Parallel with other Decision-Maker® 6000 controllers only
- Digital display and keypad provide easy local data access
- Measurements are selectable in metric or English units
- Remote communication thru a PC via network or modem configuration
- Controller supports Modbus® protocol
- Integrated voltage regulator with ±0.25% regulation
- Built-in alternator thermal overload protection
- NFPA 110 Level 1 capability

Refer to G6-107 for additional controller features and accessories.

Modbus® is a registered trademark of Schneider Electric.
BACnet® is a registered trademark of ASHRAE.

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EXHIBIT 'C'

Industrial Generator Set - 250REOZJE

208-600 V **Diesel**

Standard Features

- Alternator Protection
- Battery Rack and Cables
- Customer Connection
  (standard with Decision-Maker® 6000 controller only)
- Local Emergency Stop Switch
- Oil Drain Extension
- Operation and Installation Literature

Available Options

Circuit Breakers Type
- ❑ Magnetic Trip
- ❑ Thermal Magnetic Trip
- ❑ Electronic Trip (LI)
- ❑ Electronic Trip with Short Time (LSI)
- ❑ Electronic Trip with Ground Fault (LSIG)

Rating
- ❑ 80%
- ❑ 100%

Operation
- ❑ Manual
- ❑ Electrically Operated (for paralleling)

Circuit Breaker Mounting
- ❑ Generator Mounted
- ❑ Remote Mounted
- ❑ Bus Bar (for remote mounted breakers)

Enclosures for Remote Mounted Circuit Breakers
- ❑ NEMA 1
- ❑ NEMA 3R

Approvals and Listings
- ❑ CSA Certified
- ❑ HCAI Pre-Approval
- ❑ Hurricane Rated Enclosure
- ❑ IBC Seismic Certification
- ❑ UL 2200 Listing

Enclosed Unit
- ❑ Sound Enclosure and Subbase Fuel Tank Packages
- ❑ Weather Enclosure and Subbase Fuel Tank Packages

Open Unit
- ❑ Exhaust Silencer, Critical (kit: PA-354809)
- ❑ Flexible Exhaust Connector, Stainless Steel

Fuel System
- ❑ Flexible Fuel Lines
- ❑ Fuel Pressure Gauge
- ❑ Subbase Fuel Tanks

Controller
- ❑ Common Failure Relay
  (Decision-Maker® 6000 and APM603 controllers only)
- ❑ Decision-Maker® Paralleling System (DPS)
  (Decision-Maker® 6000 controller only)
- ❑ Dry Contact (isolated alarm)
  (Decision-Maker® 6000 controller only)
- ❑ Two Input/Five Output Module (APM402 controller only)
- ❑ Four Input/Fifteen Output Module (APM603 controller only)
- ❑ Lockable Emergency Stop Switch
- ❑ Remote Emergency Stop Switch
- ❑ Remote Serial Annunciator Panel
- ❑ Run Relay (standard with APM603, optional with others)
- ❑ Manual Key Switch (APM603 controller only)
- ❑ Manual Speed Adjust (APM402 controller only)

Cooling System
- ❑ Block Heater, 2500 W, 90-120 V
- ❑ Block Heater, 2500 W, 190-208 V
- ❑ Block Heater, 2500 W, 208-240 V
- ❑ Block Heater, 2500 W, 380-480 V
  Required for ambient temperatures below 0°C (32°F)
- ❑ Radiator Duct Flange

Electrical System
- ❑ Generator Heater
- ❑ Battery
- ❑ Battery Charger, Equalize/Float Type
- ❑ Battery Heater

Paralleling System
- ❑ Voltage Sensing

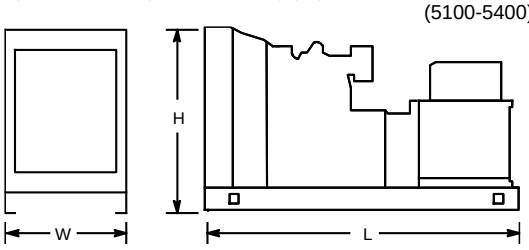
Miscellaneous
- ❑ Air Cleaner, Heavy Duty
- ❑ Air Cleaner Restriction Indicator
- ❑ Crankcase Emissions Canister
- ❑ Engine Fluids (oil and coolant) Added
- ❑ Rated Power Factor Testing
- ❑ Rodent Guards

Literature
- ❑ General Maintenance
- ❑ NFPA 110
- ❑ Overhaul
- ❑ Production

Warranty
- ❑ 2-Year Basic Limited Warranty
- ❑ 5-Year Basic Limited Warranty
- ❑ 5-Year Comprehensive Limited Warranty

Dimensions and Weights

Overall Size, L x W x H, max., mm (in.):	3000 x 1300 x 1891 (118.1 x 51.2 x 74.4)
Weight (radiator model), wet, max., kg (lb.):	2313-2449 (5100-5400)



NOTE: This drawing is provided for reference only and should not be used for planning installation. Contact your local distributor for more detailed information.

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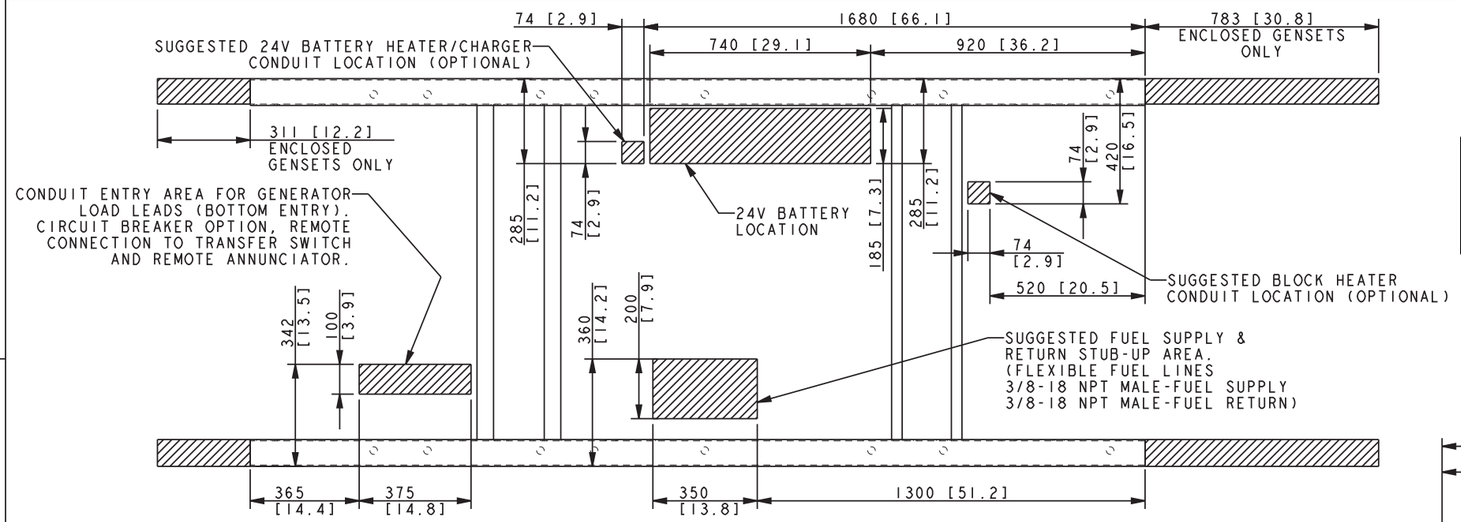
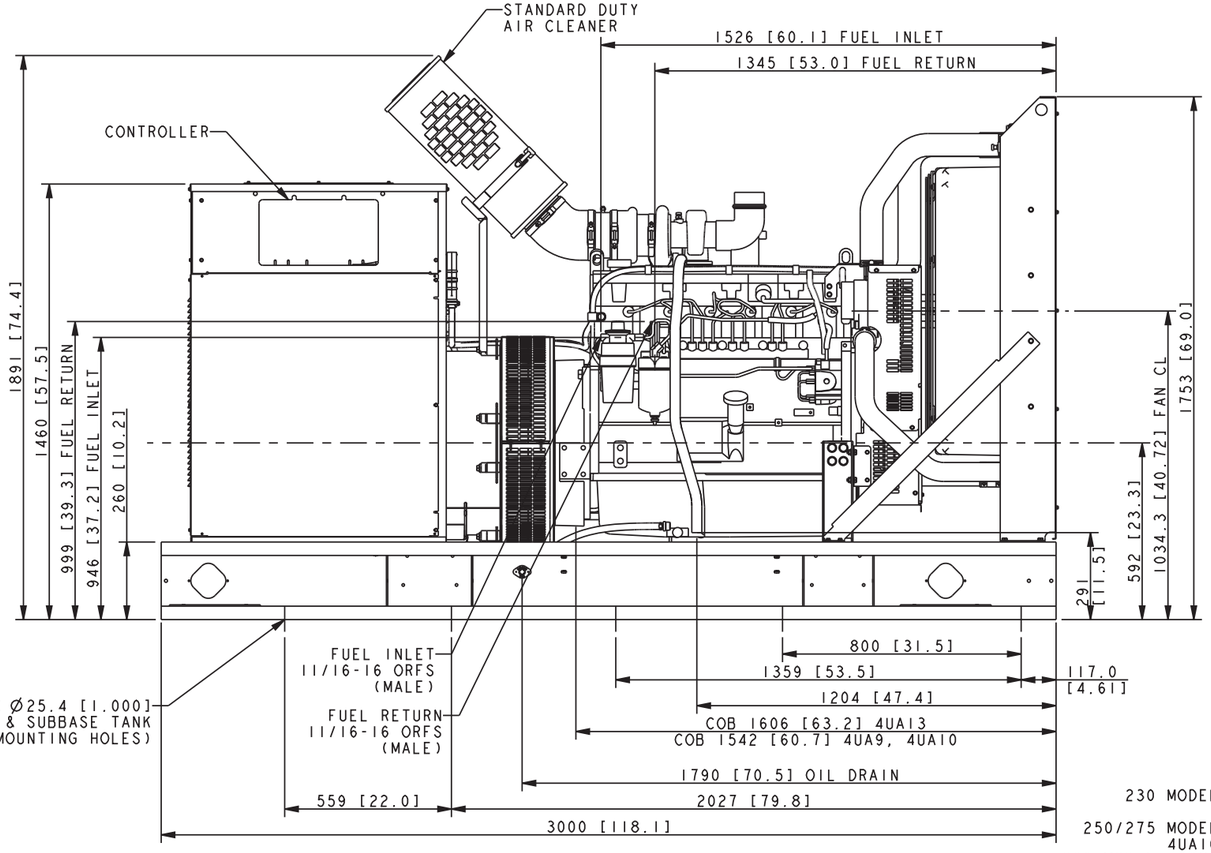
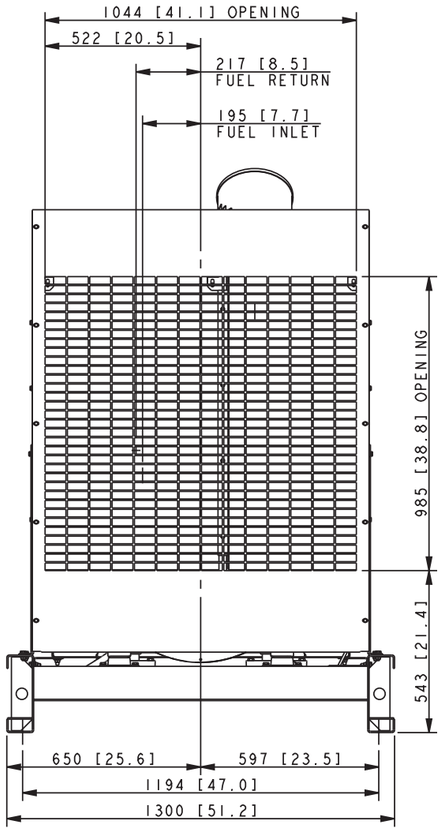


INSTALLATION NOTE
IF SUBBASE FUEL TANK AND/OR SOUND HOUSING IS USED, REFER TO SUBBASE FUEL TANK ADV TO DETERMINE MOUNTING LOCATIONS.



230 MODEL, 60 HZ 4UA9
250/275 MODEL, 60 HZ 4UA10, 4UA13
300 MODEL, 60HZ, 4UA13 RECONN. & 600V ALTERNATORS JOHN DEERE 6090HF, TIER III



MODEL	ALT.	GENSET WEIGHT (WET)
230	4UA9	2268 Kg [5000 LBS]
250/275	4UA10	2313 Kg [5100 LBS]
230/250/ 275/300	4UA13	2449 Kg [5400 LBS]

NOTES:
**1) WHEN SUBBASE TANK IS USED, CONDUIT MUST BE LOCATED OUTSIDE OF TANK AREA OR IN STUB-UP AREA FOR SUBBASE TANK. REFER TO SUBBASE ADV.

2) DIMENSIONS IN [] ARE ENGLISH EQUIVALENTS.

3) IF AN ENCLOSURE IS USED THE FUEL LINE MUST BE STUBBED UP FROM DIRECTLY UNDER THE UNIT OR BROUGHT IN FROM THE END OF THE SKID. REFER TO ENCLOSURE ADV.

4) IF IBC CERTIFICATION IS REQUIRED SEE SEISMIC ADV FOR INSTALLATION INSTRUCTIONS.

REV	DATE	ON COMPOSITE DWGS, SEE PART NO. FOR REVISION LEVEL	BY
-	9-27-10	NEW DRAWING [90099]	DJV
A	11-10-10	(B-8) 1891 [74.4] DIM ADDED; (C-6) STANDARD	
		DUTY AIR CLEANER NOTE ADDED; (D-4,8) ENCLOSED	
		GENSETS ONLY NOTE ADDED; SHEET 2 ADDED,	
		EXHAUST DETAIL MOVED TO SHEET 2 [90647-3]	DJV
B	8-22-11	(C-5) 3/8-18 WAS 1/2-14 SUPPLY [92115]	SAM

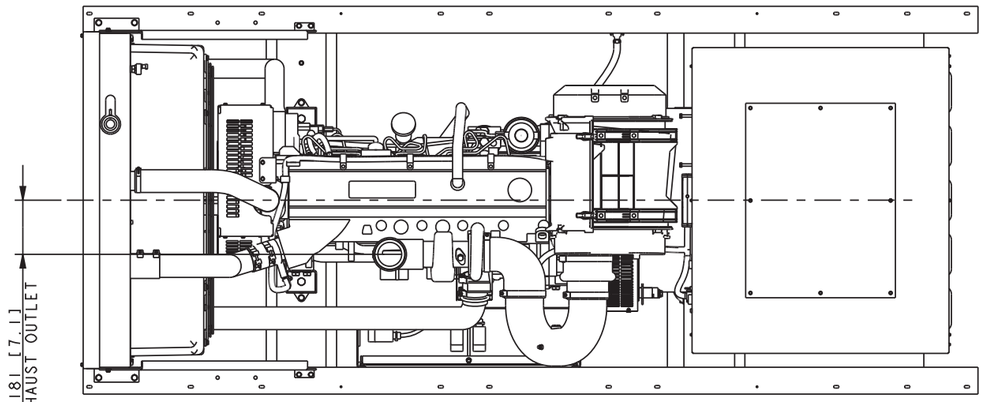
UNLESS OTHERWISE SPECIFIED - 1) DIMENSIONS ARE IN MILLIMETERS 2) TOLERANCES ARE: X.XX ±, X.X ±, X ±, ANGLES ±. SURFACE FINISH MAX. THIRD ANGLE PROJECTION

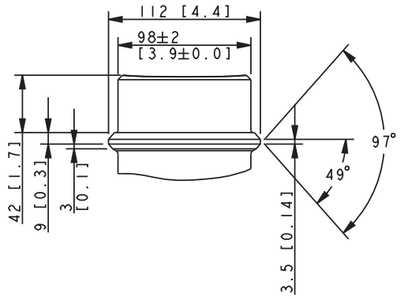
APPROVALS		DATE
DRAWN	DJV	9-27-10
CHECKED	DJV	9-27-10
APPROVED	JDZ	9-27-10

KOHLER CO. METRIC PRO-E
POWER SYSTEMS, KOHLER, WI 53044 U.S.A.

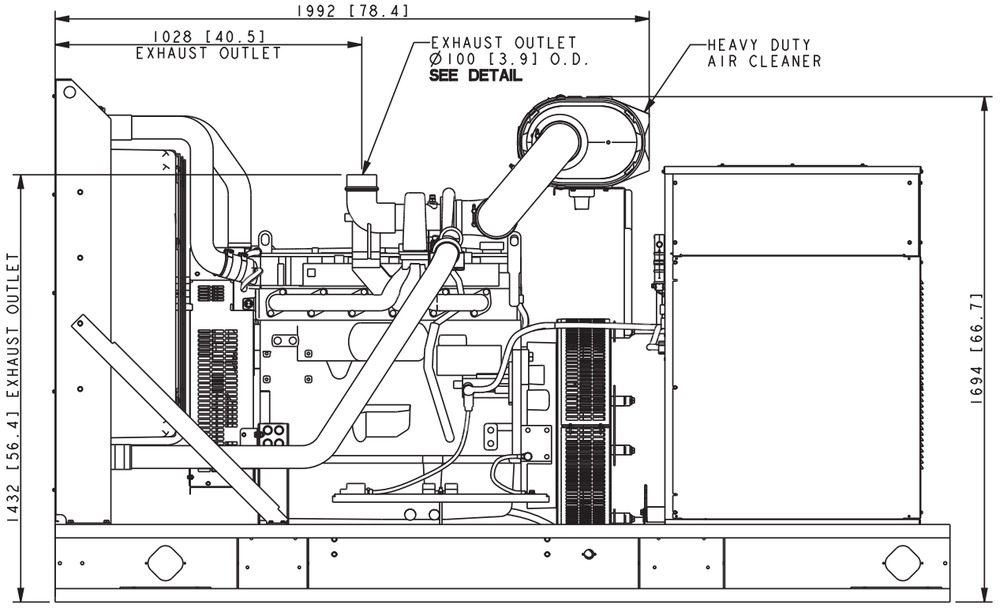
TITLE: DIMENSION PRINT, 230-300 JD
SCALE 0.11 | CAD NO. | SHEET 1 of 2
DWG NO. ADV-7900 | D

EXHIBIT 'C'





EXHAUST OUTLET
DETAIL



REV	DATE	ON COMPOSITE DWGS, SEE PART NO. FOR REVISION LEVEL	BY
A	11-10-10	SHEET 2 ADDED [90647-3]	DJV
B	8-22-11	SEE SHEET 1 [92115]	SAM

UNLESS OTHERWISE SPECIFIED -
1) DIMENSIONS ARE IN MILLIMETERS
2) TOLERANCES ARE:
X.XX ±
X.X ±
X ±
ANGLES ±
SURFACE FINISH MAX.
THIRD ANGLE PROJECTION

APPROVALS	DATE
DRAWN DJV	11-10-10
CHECKED DJV	11-10-10
APPROVED JDZ	11-10-10

KOHLER CO. METRIC PRO-E
POWER SYSTEMS, KOHLER, WI 53044 U.S.A.

TITLE
DIMENSION PRINT, 230-300 JD

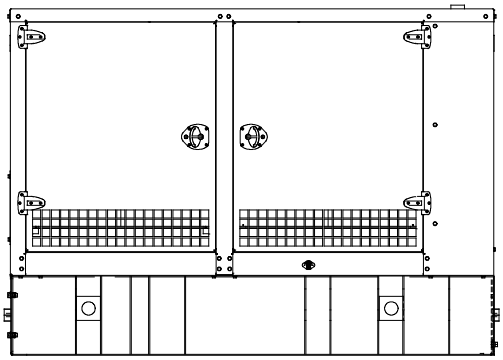
SCALE 0.11 | CAD NO. | SHEET 2 of 2
DWG NO. **ADV-7900** | **D**

EXHIBIT 'C'

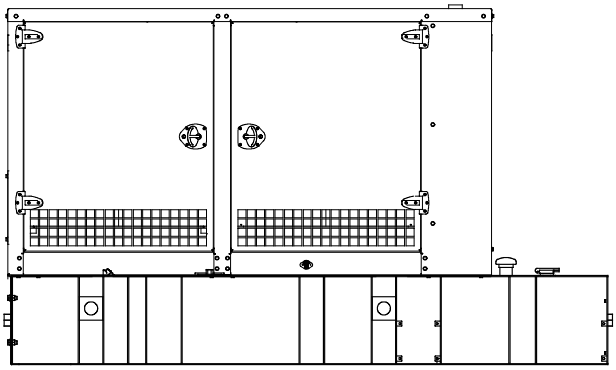
KOHLER®

Industrial Generator Set Accessories

Weather/Sound Enclosure and Subbase Fuel Tank Package



Enclosure with Standard Subbase Fuel Tank



Enclosure with State Code Subbase Fuel Tank

Applicable to the following:

40REOZJC, 50/60REOZJD, 80/100/150/200REOZJF, 125/180REOZJG, 230- 275REOZJE, and 300REOZJ

Weather Enclosure Standard Features

- Internal-mounted silencer and flexible exhaust connector.
- Lift base or tank-mounted, steel construction with hinged doors.
- Fade-, scratch-, and corrosion-resistant Kohler® Power Armor™ automotive-grade textured finish.
- Enclosure has four access doors which allow for easy maintenance.
- Lockable, flush-mounted door latches.
- Vertical air inlet and outlet discharge to redirect air and reduce noise.
- Weather enclosure is designed to150 mph (241 kph) wind load rating.

Sound Enclosure Standard Features

- Includes all of the weather enclosure features with the addition of acoustic insulation material.
- Lift base or tank-mounted, steel or aluminum construction with hinged doors. Aluminum enclosures are recommended for high humidity and/or high salt/ coastal regions.
- Acoustic insulation that meets UL 94 HF1 flammability classification and repels moisture absorption.
- Sound-attenuated enclosure that uses up to 51 mm (2 in.) of acoustic insulation.
- Steel sound enclosure is designed to150 mph (241 kph) wind load rating.
- Aluminum sound enclosure is certified to 186 mph (299 kph) wind load rating for 80- 150REOZJ models.
- Aluminum sound enclosure is certified to 181 mph (291 kph) wind load rating for 180- 300REOZJ models.

Subbase Fuel Tank Features

- The fuel tank has a Power Armor Plus™ textured epoxy-based rubberized coating.
- The above-ground rectangular secondary containment tank mounts directly to the generator set, below the generator set skid (subbase).
- Both the inner and outer tanks have emergency relief vents.
- Flexible fuel lines are provided with subbase fuel tank selection.
- The secondary containment generator set base tank meets UL 142 tank requirements. The inner (primary) tank is sealed inside the outer (secondary) tank. The outer tank contains the fuel if the inner tank leaks or ruptures.
- State tanks with varying capacities are an available option. Florida Dept. of Environmental Protection (FDEP) File No. EQ-634 approved.

Available Approvals and Listings

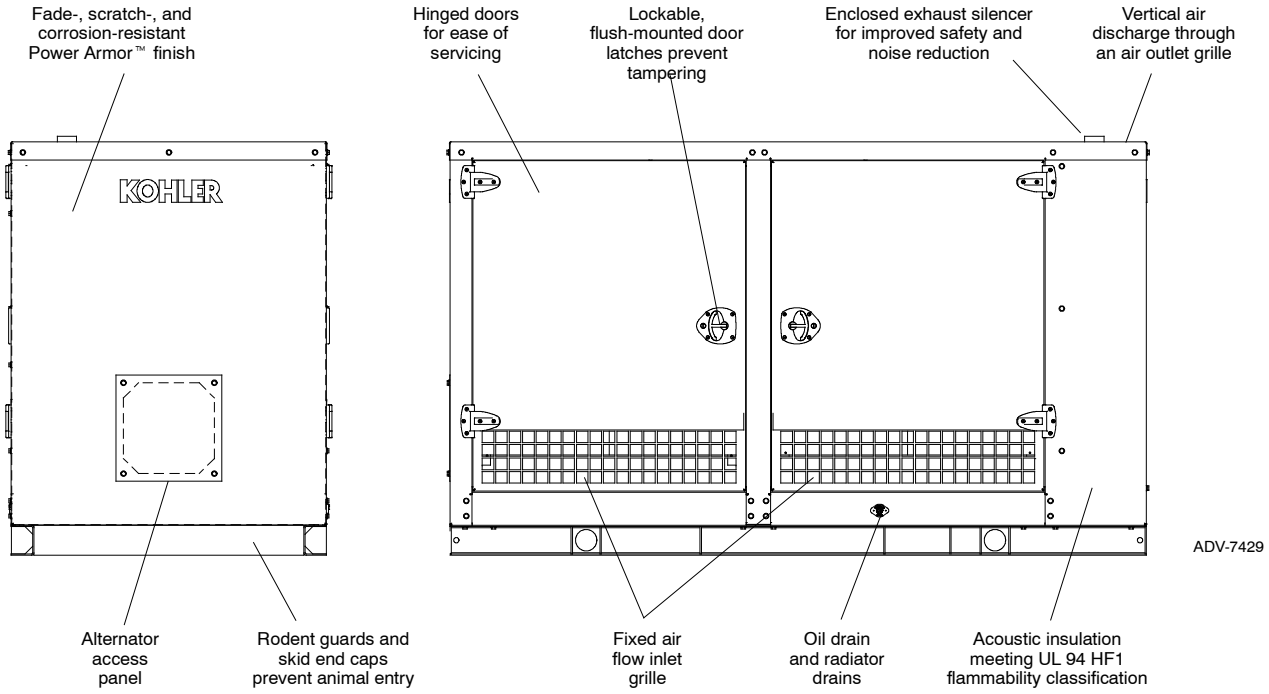
- ❑ UL 2200 Listing
- ❑ CSA Certified
- ❑ IBC Seismic Certification *
- ❑ California OSHPD Pre- Approval *
- ❑ cUL Listing (fuel tanks only)
- ❑ Hurricane Rated Enclosure - Available on sound aluminum 80- 300kW models. (Impact rated for Large Missile Level E and Wind load rated per Florida Building Code tested to TAS201- 94, TAS202- 94 and TAS203- 94 standards)

NOTE: Some models may have limited third-party approvals; see your local distributor for details.

* Requires a state code subbase fuel tank selection.

EXHIBIT 'C'

Weather and Sound Enclosure



Note: 40REOZJC model shown, other models are similar. Refer to the respective ADV drawings for details.

Enclosure Features

- Available in steel (14 gauge) formed panel, solid construction. Preassembled package offering corrosion resistant, dent resilient structure mounting directly to lift base or fuel tank.
- Power Armor™ automotive-grade finish resulting in advanced corrosion and abrasion protection as well as enhanced edge coverage and color retention.
- Internal exhaust silencer offering maximum component life and operator safety.

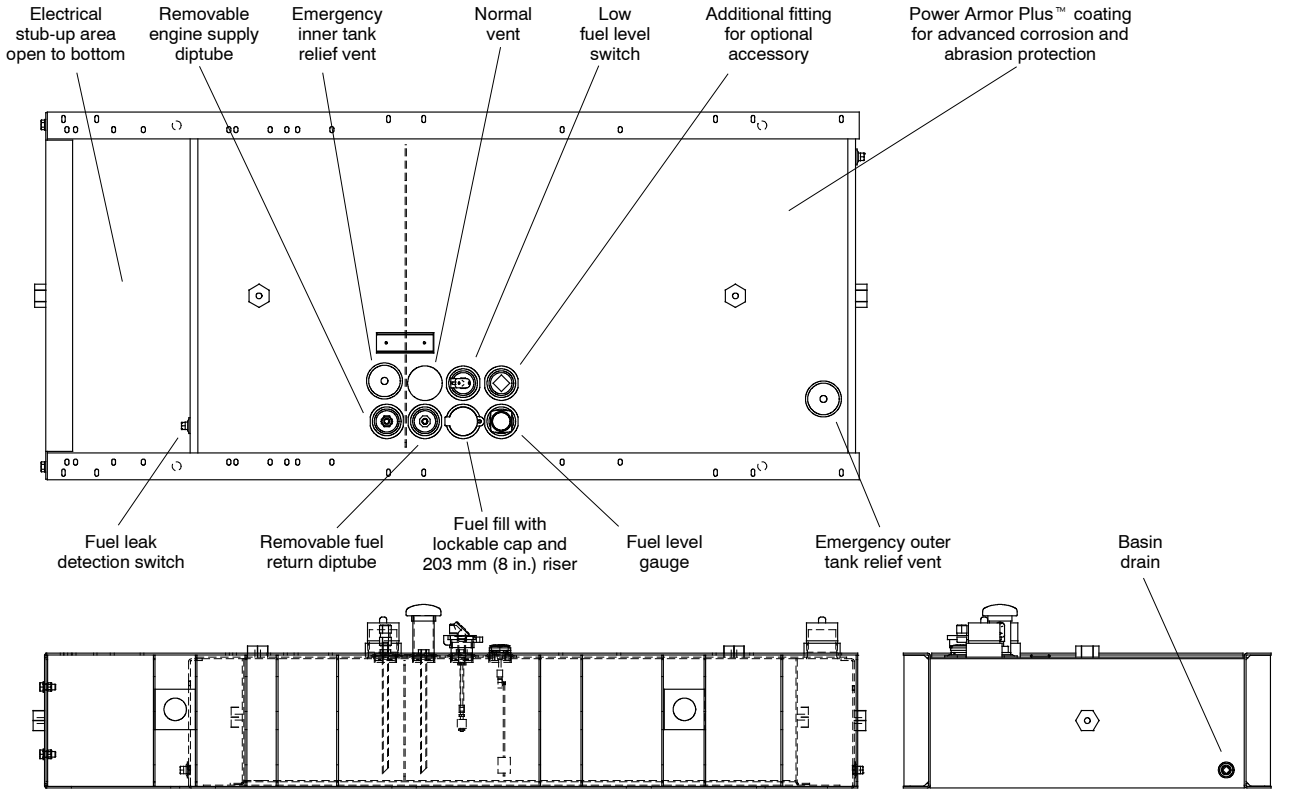
  NOTE: Installing an additional length of exhaust tail pipe may increase backpressure levels. Please refer to the generator set spec sheet for the maximum backpressure value.
- Interchangeable modular panel construction. Allows complete serviceability or replacement without compromising enclosure design.
- Cooling/combustion air intake with a horizontal air inlet. Sized for maximum cooling airflow.
- Service access. Multi-personnel doors for easy access to generator set control and servicing of the fuel fill, fuel gauge, oil fill, and battery.
- Cooling air discharge. Weather protective design featuring a vertical air discharge outlet grille. Redirects cooling air up and above enclosure to reduce ambient noise.

Additional Sound Enclosure Features

- Available in steel (14 gauge) or aluminum 3.2 mm (0.125 in.) formed panel, solid construction.
- Sound-attenuated design. Acoustic insulation UL 94 HF1 listed for flame resistance offering up to 51 mm (2 in.) mechanically restrained acoustic insulation.
- Cooling air discharge. The sound enclosures include acoustic insulation with urethane film.
- Snow package enclosure is designed to meet NFPA 110 requirement to - 20°C (- 4°F).

EXHIBIT 'C'

Subbase Fuel Tank



Note: 40REOZJC model shown, other models are similar. Refer to the respective ADV drawings for details.

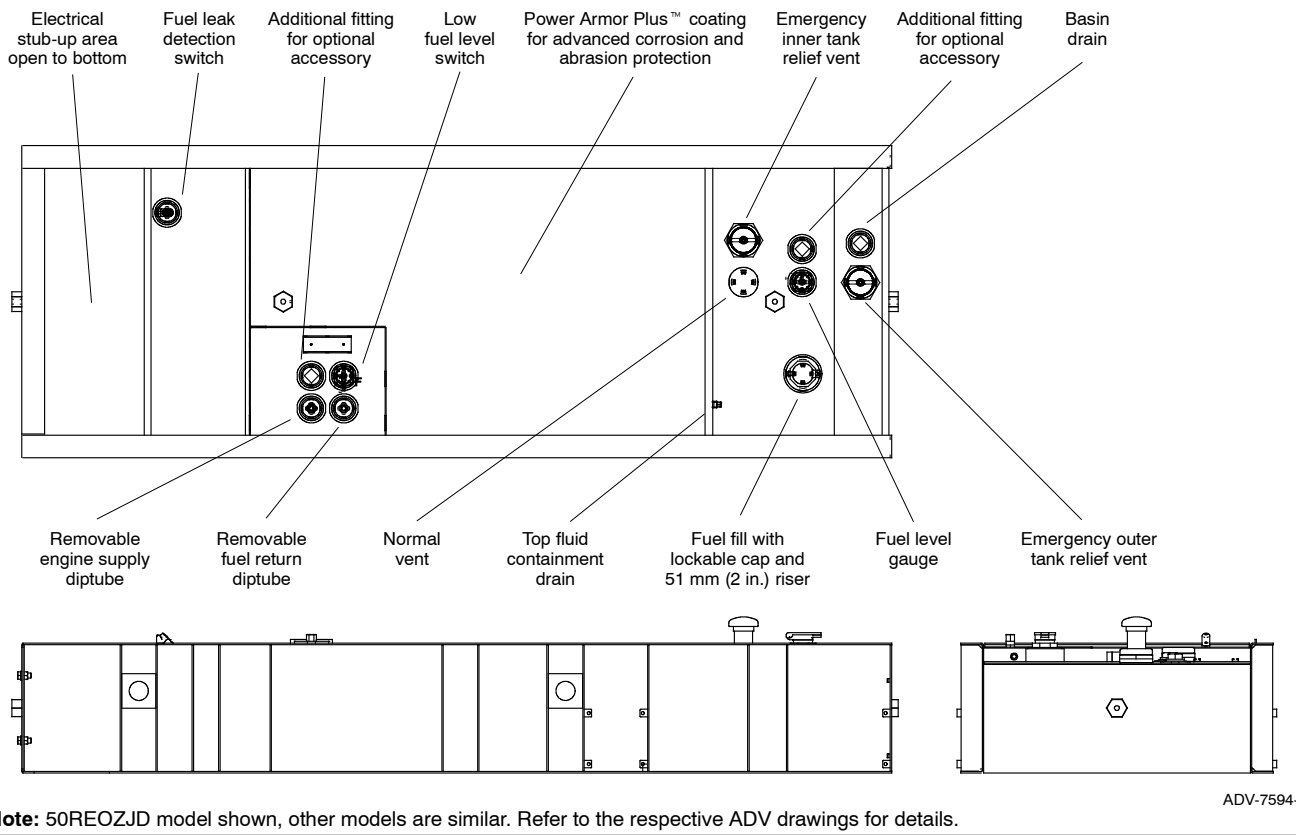
Standard Subbase Fuel Tank Features

- Extended operation. Usable tank capacity offers full load standby operation of up to 96 hours on select models.
- Power Armor Plus™ textured epoxy-based rubberized coating that creates an ultra-thick barrier between the tank and harsh environmental conditions like humidity, saltwater, and extreme temperatures, and provides advanced corrosion and abrasion protection.
- UL listed. Secondary containment generator set base tank meeting UL 142 requirements.
- NFPA compliant. Designed to comply with the installation standards of NFPA 30 and NFPA 37.
- Integral external lift lugs. Enables crane with spreader-bar lifting of the complete package (empty tank, mounted generator set, and enclosure) to ensure safety.
- Emergency pressure relief vents. Vents ensure adequate venting of the inner and outer tank under extreme pressure and/or emergency conditions.
- Normal vent with cap. Vent is raised above lockable fuel fill.
- Low fuel level switch. Annunciates a 50% low fuel level condition at generator set control.
- Leak detection switch. Annunciates a contained primary tank fuel leak condition at generator set control.
- Electrical stub-up.

NOTE: For IBC Seismic Certification and/or California OSHPD Pre- Approval, see State Code Subbase Fuel Tank.

EXHIBIT 'C'

State Code Subbase Fuel Tank



Note: 50REOZJD model shown, other models are similar. Refer to the respective ADV drawings for details.

State Code Subbase Fuel Tank Features

- State tank designed to comply with the installation standards of the Florida Dept. of Environmental Protection (FDEP) File No. EQ-634.
- Includes all of the Standard Subbase Fuel Tank Features.

State Code Subbase Fuel Tank Options

Bottom Clearance

❑ I-beams, provides 106 mm (4.2 in.) of ground clearance

Fuel in Basin Options

❑ Fuel in basin switch, Florida Dept. of Environmental Protection (FDEP) File No. EQ-682 approved

Fuel Fill Options

❑ Fill pipe extension to within 152 mm (6 in.) of bottom of fuel tank.

❑ 18.9 L (5 gallon) spill containment with 95% shutoff

❑ 18.9 L (5 gallon) spill containment

❑ 18.9 L (5 gallon) spill containment fill to within 152 mm (6 in.) of bottom of fuel tank

❑ 28.4 L (7.5 gallon) spill containment, Florida Dept. of Environmental Protection (FDEP) File No. EQ-882 approved

❑ 28.4 L (7.5 gallon) spill containment with 95% shutoff, Florida Dept. of Environmental Protection (FDEP) File No. EQ- 882/ EQ-883 approved

Fuel Supply Options

❑ Fire safety valve (installed on fuel supply line)

❑ Ball valve (installed on fuel supply line)

High Fuel Level Switch

❑ High fuel level switch

❑ High fuel level switch, Florida Dept. of Environmental Protection (FDEP) File No. EQ-682 approved

Normal Vent Options

❑ 3.7 m (12 ft.) above grade (without spill containment)

❑ 3.7 m (12 ft.) above grade (with spill containment)

Tank Marking Options

❑ Decal, Combustible Liquids - Keep Fire Away (qty. 2)

❑ Decal, NFPA 704 identification (qty. 2)

❑ Decal, tank number and safe fuel fill height (qty. 2)

❑ Decal, tank number and safe fuel fill height, NFPA 704 identification

Fluid Containment Options

❑ 100% engine fluid containment

Third-Party Approvals

❑ IBC Seismic Certification

❑ California OSPHD Pre- Approval

EXHIBIT 'C'

Enclosure and Subbase Fuel Tank Specifications

Fuel Tank Capacity, L (gal.)	Est. Fuel Supply Hours at 60 Hz with Full Load, Nominal/ Actual	Enclosure and Subbase Fuel Tank					Fuel Tank Height (or additional skid height with no tank), mm (in.)	Sound Pressure Level at 60 Hz with Full Load, Weather/ Sound, dB(A)‡
		Max. Dimensions, mm (in.)			Max. Weight, kg (lb.) *			
		Length	Width	Height	With Steel Enclosure	With Aluminum Enclosure		
40REOZJC Standard Fuel Tank								
No Tank	0	2320 (91.3)	1077 (42.4)	1521 (60.0)	966 (2130)	853 (1880)	100 (4)	78/65
424 (112)	24/32			1827 (71.9)	1223 (2697)*	1110 (2447)*	406 (16)	
625 (165)	48/48			1980 (78.0)	1274 (2809)*	1161 (2559)*	559 (22)	
958 (253)	72/73			2234 (88.0)	1555 (3429)*	1442 (3179)*	813 (32)	
50REOZJD Standard Fuel Tank								
No Tank	0	2320 (91.3)	1077 (42.4)	1521 (59.9)	1027 (2265)	914 (2015)	100 (4)	78/66
424 (112)	24/26			1827 (71.9)	1285 (2832)*	1171 (2582)*	406 (16)	
625 (165)	36/38			1980 (78.0)	1335 (2944)*	1222 (2694)*	559 (22)	
946 (250)	48/58			2234 (88.0)	1555 (3429)*	1442 (3179)*	813 (32)	
50REOZJD State Code Fuel Tank †								
439 (116)	24/26	2896 (114)	1077 (42.4)	1883 (74.1)	1529 (3371)*	1416 (3121)*	356 (14)	78/66
958 (253)	48/58			2213 (87.1)	1653 (3644)*	1540 (3394)*	686 (27)	
1408 (372)	72/86			2441 (96.1)	1804 (3977)*	1691 (3727)*	914 (36)	
60REOZJD Standard Fuel Tank								
No Tank	0	2320 (91.3)	1077 (42.4)	1521 (59.9)	1164 (2566)	1051 (2316)	100 (4)	78/68
492 (130)	24/26			1878 (73.9)	1438 (3170)*	1324 (2920)*	457 (18)	
783 (207)	36/41			2107 (83.0)	1514 (3338)*	1401 (3088)*	686 (27)	
946 (250)	48/50			2234 (88.0)	1555 (3429)*	1442 (3179)*	813 (32)	
60REOZJD State Code Fuel Tank †								
556 (147)	24/29	2895 (114)	1077 (42.4)	1959 (77.1)	1616 (3563)*	1503 (3313)*	432 (17)	78/68
958 (253)	48/50			2213 (87.1)	1767 (3896)*	1654 (3646)*	686 (27)	
1408 (372)	72/74			2441 (96.1)	1918 (4228)*	1805 (3978)*	914 (36)	
80REOZJF Standard Tank								
No Tank	0	2821 (111.1)	1156 (45.5)	1723 (67.8)	1483 (3269)	1351 (2979)	150 (6)	83/69
791 (209)	24/30			2081 (81.9)	1766 (3894)*	1635 (3604)*	508 (20)	
1317 (348)	48/50			2386 (93.9)	1882 (4150)*	1751 (3860)*	813 (32)	
80REOZJF State Code Fuel Tank †								
814 (215)	24/31	3400 (133.9)	1156 (45.5)	2111 (83.1)	1996 (4400)*	1864 (4110)*	432 (17)	83/69
1571 (415)	48/60			2441 (96.1)	2236 (4929)*	2104 (4639)*	762 (30)	
3089 (816)	96/113	3607 (142.0)	1829 (72.0)	2536 (99.8)	3058 (6741)*	2933 (6466)*	813 (32.0)	

Note: Data in table is for reference only, refer to the respective ADV drawings for details.

***** Max. weight includes the generator set (wet) using the largest alternator option, enclosure with acoustic insulation added, silencer, and tank (no fuel).

† State code fuel tank specifications (height and weight) include I-beam option.

‡ Log average sound pressure level of 8 measured positions around the perimeter of the unit at a distance of 7 m (23 ft). Refer to TIB-114 for details.

EXHIBIT 'C'

Enclosure and Subbase Fuel Tank Specifications (continued)

Fuel Tank Capacity, L (gal.)	Est. Fuel Supply Hours at 60 Hz with Full Load, Nominal/ Actual	Enclosure and Subbase Fuel Tank					Fuel Tank Height (or additional skid height with no tank), mm (in.)	Sound Pressure Level at 60 Hz with Full Load, Weather/ Sound, dB(A)‡
		Max. Dimensions, mm (in.)			Max. Weight, kg (lb.) *			
		Length	Width	Height	With Steel Enclosure	With Aluminum Enclosure		
100REOZJF Standard Tank								
No Tank	0	2821 (111.1)	1156 (45.5)	1723 (67.8)	1592 (3510)	1461 (3220)	150 (6)	82/69
791 (209)	24/25			2081 (81.9)	1875 (4134)*	1744 (3844)*	508 (20)	
1696 (448)	48/54	3400 (133.9)		2386 (93.9)	2070 (4564)*	1939 (4274)*	813 (32)	
100REOZJF State Code Fuel Tank †								
814 (215)	24/26	3400 (133.9)	1156 (45.5)	2111 (83.1)	2105 (4641)*	1974 (4351)*	432 (17)	82/69
1571 (415)	48/50			2441 (96.1)	2345 (5170)*	2214 (4880)*	762 (30)	
3089 (816)	96/96	3607 (142.0)	1829 (72.0)	2536 (99.8)	3167 (6981)*	3042 (6706)*	813 (32.0)	
125REOZJG Standard Fuel Tank								
No Tank	0	3532 (139.0)	1153 (45.4)	1739 (68.5)	1651 (3632)	1515 (3333)	0 (0)	87/73
1128 (298)	24/30			2222 (87.5)	2400 (5280)*	2264 (4981)*	483 (19)	
2207 (583)	48/58			2653 (104.4)	2751 (6052)*	2615 (5753)*	914 (36)	
125REOZJG State Code Fuel Tank †								
1196 (316)	24/31	4414 (173.8)	1153 (45.4)	2328 (91.7)	2382 (5240)*	2446 (4941)*	483 (19)	87/73
2252 (595)	48/60			2683 (105.6)	2654 (5839)*	2500 (5511)*	838 (33)	
4403(1163)	96/113	4445 (175.0)	1829 (72.0)	2654 (104.5)	3707 (8173)*	3571 (7873)*	914 (36.0)	
150REOZJF Standard Fuel Tank								
No Tank	0	3532 (139.0)	1153 (45.4)	1739 (68.5)	1860 (4101)	1724 (3800)	0 (0)	86/75
1128 (298)	24/25			2222 (87.5)	2609 (5752)*	2473 (5452)*	483 (19)	
2207 (583)	48/49			2653 (104.4)	2960 (6526)*	2824 (6226)*	914 (36)	
150REOZJF State Code Fuel Tank †								
1196 (316)	24/27	4414 (173.8)	1153 (45.4)	2328 (91.7)	2591 (5712)*	2455 (5412)*	483 (19)	86/75
2252 (595)	48/50			2683 (105.6)	2890 (6361)*	2727 (6012)*	838 (33)	
4403(1163)	96/95	4445 (175.0)	1829 (72.0)	2654 (104.5)	3839 (8463)*	3702 (8163)*	914 (36.0)	
180REOZJG Standard Fuel Tank								
No Tank	0	4094 (161.2)	1338 (52.7)	2038 (80.2)	1928 (4250)	1780 (3925)	0 (0)	85/72
1514 (400)	24/31			2521 (99.3)	2861 (6307)*	2713 (5981)*	483 (19)	
2869 (758)	48/58			2927 (115.2)	3255 (7176)*	3107 (6850)*	889 (35)	
180REOZJG State Code Fuel Tank †								
1556 (416)	24/32	5008 (197.2)	1338 (52.7)	2601 (102.4)	3162 (6971)*	3014 (6646)*	457 (18)	85/72
2896 (765)	48/59			2906 (114.4)	3488 (7690)*	3340 (7363)*	762 (30)	
5742(1517)	96/106	5436 (214.0)	1829 (72.0)	2935 (115.5)	3760 (8289)*	3474 (7659)*	914 (36.0)	
200REOZJF Standard Fuel Tank								
No Tank	0	4094 (161.2)	1338 (52.7)	2025 (79.7)	2508 (5530)	2223 (4900)	0 (0)	87/74
1514 (400)	24/26			2508 (98.7)	3441 (7587)*	3156 (6957)*	483 (19)	
2869 (758)	48/49			2914 (114.7)	3836 (8456)*	3550 (7826)*	889 (35)	
200REOZJF State Code Fuel Tank †								
1575 (416)	24/27	5008 (197.2)	1338 (52.7)	2588 (101.9)	3743 (8251)*	3456 (7621)*	457 (18)	87/74
2896 (765)	48/50			2893 (113.9)	4069 (8970)*	3783 (8340)*	762 (30)	
5742(1517)	96/95	5436 (214.0)	1829 (72.0)	2935 (115.5)	4236 (9339)*	3950 (8709)*	914 (36.0)	

Note: Data in table is for reference only, refer to the respective ADV drawings for details.

* Max. weight includes the generator set (wet) using the largest alternator option, enclosure with acoustic insulation added, silencer, and tank (no fuel).

† State code fuel tank specifications (height and weight) include I-beam option.

‡ Log average sound pressure level of 8 measured positions around the perimeter of the unit at a distance of 7 m (23 ft). Refer to TIB-114 for details.

EXHIBIT 'C'

Enclosure and Subbase Fuel Tank Specifications (continued)

Fuel Tank Capacity, L (gal.)	Est. Fuel Supply Hours at 60 Hz with Full Load, Nominal/ Actual	Enclosure and Subbase Fuel Tank					Fuel Tank Height (or additional skid height with no tank), mm (in.)	Sound Pressure Level at 60 Hz with Full Load, Weather/ Sound, dB(A)‡
		Max. Dimensions, mm (in.)			Max. Weight, kg (lb.) *			
		Length	Width	Height	With Steel Enclosure	With Aluminum Enclosure		
230REOZJE Standard Fuel Tank								
No Tank	0	4121 (162.3)	1338 (52.7)	2153 (84.8)	2654 (5850)	2540 (5600)	260 (10)	87/75
1787 (472)	24/29			2655 (104.5)	3561 (7850)*	3447 (7600)*	762 (30)	
230REOZJE State Code Fuel Tank †								
2101 (555)	24/34	5009 (197.2)	1338 (52.7)	2894 (113.9)	3895 (8587)*	3782 (8337)*	635 (25)	87/75
3573 (944)	48/58	5325 (209.7)		3173 (124.9)	4504 (9930)*	4391 (9680)*	914 (36)	
250REOZJE Standard Fuel Tank								
No Tank	0	4121 (162.3)	1338 (52.7)	2153 (84.8)	2699 (5950)	2585 (5700)	260 (10)	89/75
1787 (472)	24/26			2655 (104.5)	3606 (7950)*	3493 (7700)*	762 (30)	
250REOZJE State Code Fuel Tank †								
2101 (555)	24/31	5009 (197.2)	1338 (52.7)	2894 (113.9)	3940 (8687)*	3827 (8437)*	635 (25)	89/75
3573 (944)	48/53	5325 (209.7)		3173 (124.9)	4550 (10030)*	4436 (9780)*	914 (36)	
275REOZJE Standard Fuel Tank								
No Tank	0	4121 (162.3)	1338 (52.7)	2153 (84.8)	2835 (6250)	2722 (6000)	260 (10)	89/75
1787 (472)	24/24			2655 (104.5)	3742 (8250)*	3629 (8000)*	762 (30)	
275REOZJE State Code Fuel Tank †								
2101 (555)	24/28	5009 (197.2)	1338 (52.7)	2894 (113.9)	4076 (8987)*	3963 (8737)*	635 (25)	89/75
3573 (944)	48/48	5325 (209.7)		3173 (124.9)	4686 (10330)*	4572 (10080)*	914 (36)	
300REOZJ Standard Fuel Tank								
No Tank	0	4121 (162.3)	1338 (52.7)	2153 (84.8)	2835 (6250)	2722 (6000)	260 (10)	89/75
2067 (546)	24/24			2731 (107.5)	3770 (8311)*	3656 (8061)*	838 (33)	
300REOZJ State Code Fuel Tank †								
2101 (555)	24/25	5009 (197.2)	1338 (52.7)	2894 (113.9)	4076 (8987)*	3963 (8737)*	635 (25)	89/75
4065(1074)	48/48	5588 (220.0)		3173 (124.9)	4644 (10238)*	4530 (9988)*	914 (36)	

Note: Data in table is for reference only, refer to the respective ADV drawings for details.

***** Max. weight includes the generator set (wet) using the largest alternator option, enclosure with acoustic insulation added, silencer, and tank (no fuel).

† State code fuel tank specifications (height and weight) include I-beam option.

‡ Log average sound pressure level of 8 measured positions around the perimeter of the unit at a distance of 7 m (23 ft). Refer to TIB-114 for details.

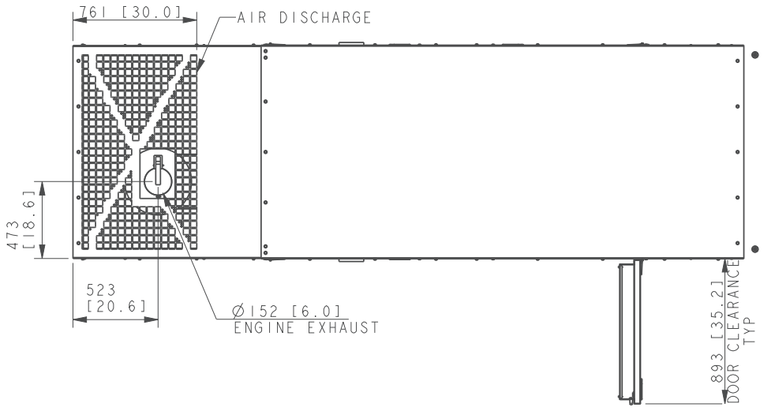
EXHIBIT 'C'

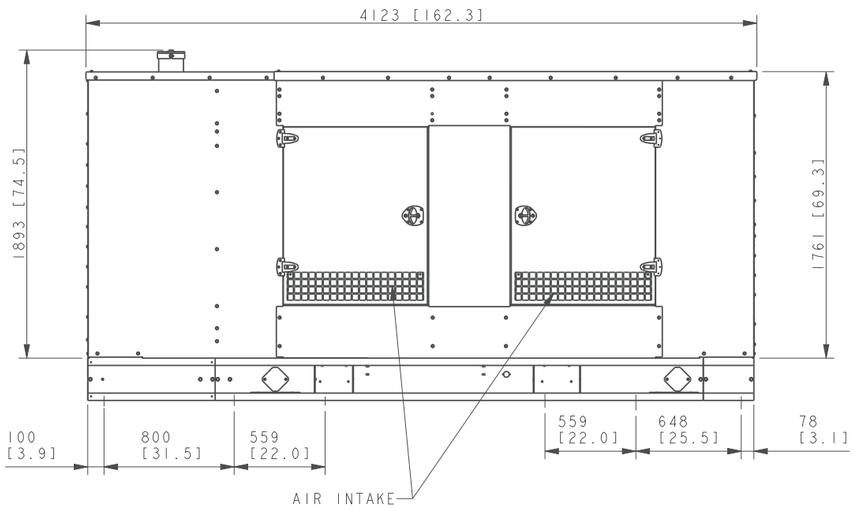
KOHLER CO., Kohler, Wisconsin 53044 USA
Phone 920-457-4441, Fax 920-459-1646
For the nearest sales and service outlet in the US and Canada, phone 1-800-544-2444
KOHLERPower.com

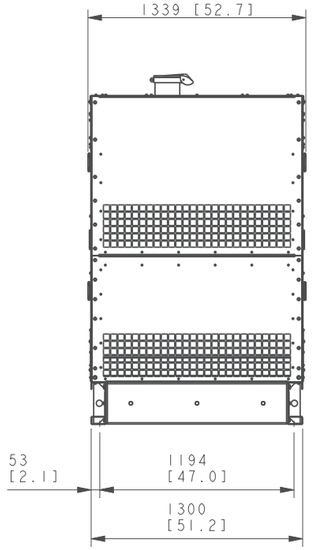
DISTRIBUTED BY:

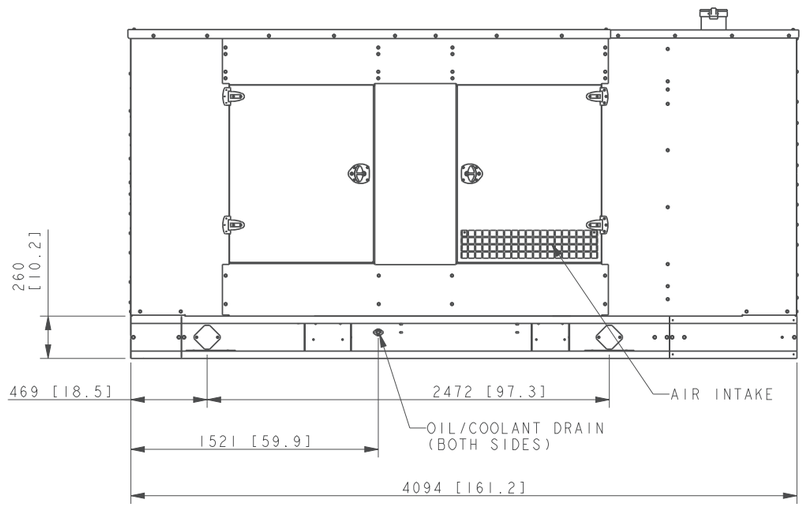
EXHIBIT 'C'

MODEL	ENCLOSURE WEIGHT KG [LBS]
STEEL WEATHER	363 [800]
STEEL SOUND	386 [850]
ALUMINIUM SOUND	238 [525]









NOTE:

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3. TANK MAY EXTEND BEYOND ENCLOSURE (DISCHARGE END ONLY)
4. FOR STUB-UP ACCESS DURING INSTALLATION THE REAR ENCLOSURE PANEL SHOULD BE REMOVED.

230-300 MODEL
JOHN DEERE TIER III

REV	DATE	ON COMPOSITE DWGS, SEE PART NO. FOR REVISION LEVEL	BY
E	10-31-12	SHEET 2 WAS SHEET1, ADDED SHEET 1 [CT28612]	CEK
F	2-5-13	(A-1) 1-4 WAS 1-2, SEE SHEET 3 AND 4 [CT32174]	SAM
G	8-4-17	(D-6) DIM. Ø152.4 (6.00) ADDED [CT177004]	SRM
H	11-22-18	VIEWS UPDATED, SEE SHEET 2,3 & 4 [CT191932]	YPW

UNLESS OTHERWISE SPECIFIED:
1) DIMENSIONS ARE IN MILLIMETERS
2) TOLERANCES ARE:
X.XX ± 0.25
X.X ± 1.0
X ± 1.5
ANGLES ± 0° 30'
SURFACE FINISH MAX.
THIRD ANGLE PROJECTION

APPROVALS		DATE
DRAWN	DJV	10-24-08
CHECKED	CWF	10-24-08
APPROVED	SLJ	10-24-08

KOHLER CO. METRIC PRO-E

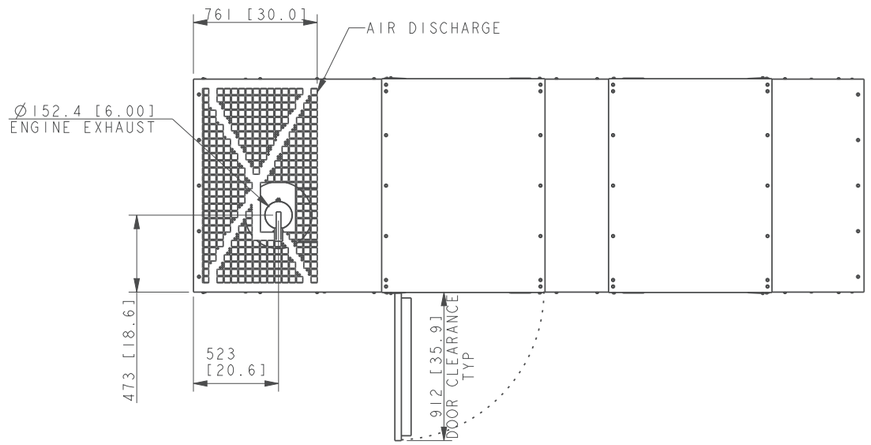
POWER SYSTEMS, KOHLER, WI 53044 U.S.A.

TITLE
DIMENSION PRINT 230-300KW JD

SCALE 0.06 | CAD NO. | SHEET 1 of 4
DWG NO. ADV-7644 | D

EXHIBIT 'C'

MODEL	ENCLOSURE WEIGHT KG [LBS]
STEEL WEATHER	363 [800]
STEEL SOUND	386 [850]
ALUMINIUM SOUND	238 [525]



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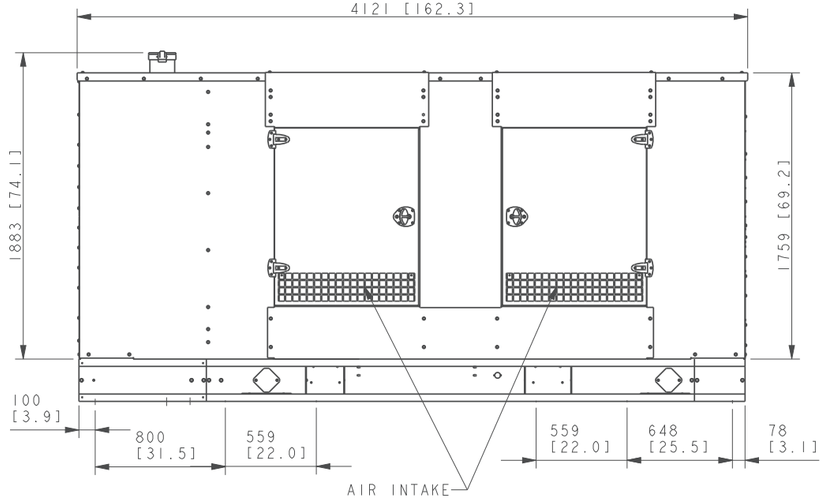

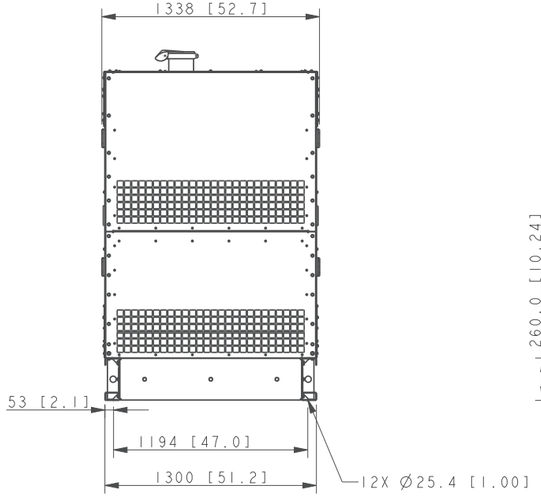

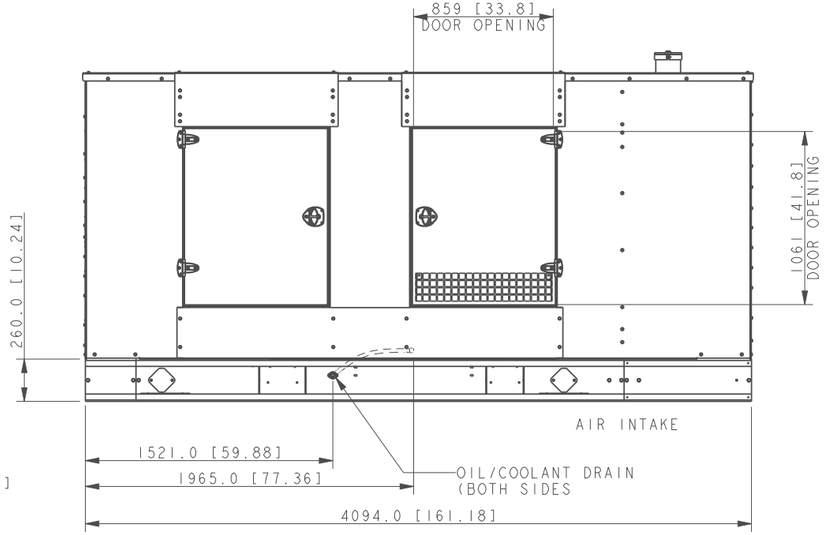

DIMENSIONS IN [] ARE IN ENGLISH EQUIVALENTS.

230-300 MODEL
JOHN DEERE TIER III
IBC/ OSHPD

REV	DATE	ON COMPOSITE DWGS, SEE PART NO. FOR REVISION LEVEL	BY
B	10-7-10	(D-6) 523 WAS 588, (C-6) 761 WAS 713, (B-2) 4121.4 WAS 4100.0 [90099-5]	RJS
C	3-16-11	(A-8) 260.0 WAS 200.0 [91189]	SAM
D	6-20-11	(C-3) STUB-UP NOTE ADDED [91752]	SAM
E	10-31-12	SHEET2 WAS SHEET 1, ADDED SHEET 1 [CT28612]	CEK
F	2-5-13	(A-1) 2-4 WAS 2-2, SEE SHEET 3 AND 4 [CT32174]	SAM
G	8-4-17	(C-5) DIM. Ø152.4 (6.00) ADDED; SEE SHEET 1 [CT177004]	SRM
H	11-22-18	VIEWS UPDATED, SEE SHEET 1,3 & 4 [CT191932]	YPW

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APPROVALS		DATE
DRAWN	DJV	10-24-08
CHECKED	CWF	10-24-08
APPROVED	SLJ	10-24-08

KOHLER CO. METRIC PRO-E

POWER SYSTEMS, KOHLER, WI 53044 U.S.A.

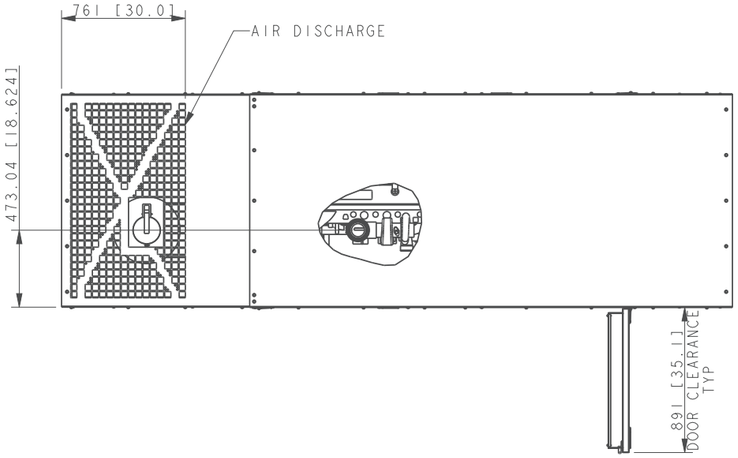
TITLE: DIMENSION PRINT 230-300KW JD

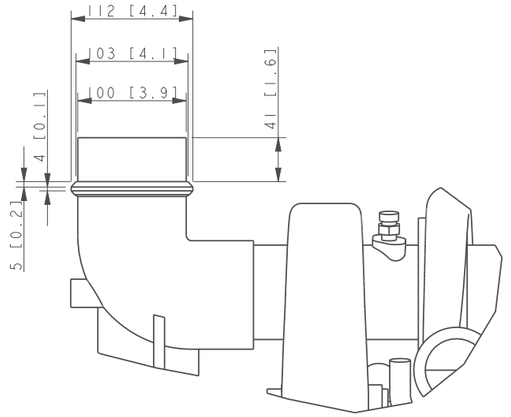
SCALE 0.06 | CAD NO. | SHEET 2 of 4

DWG NO. ADV-7644 | D

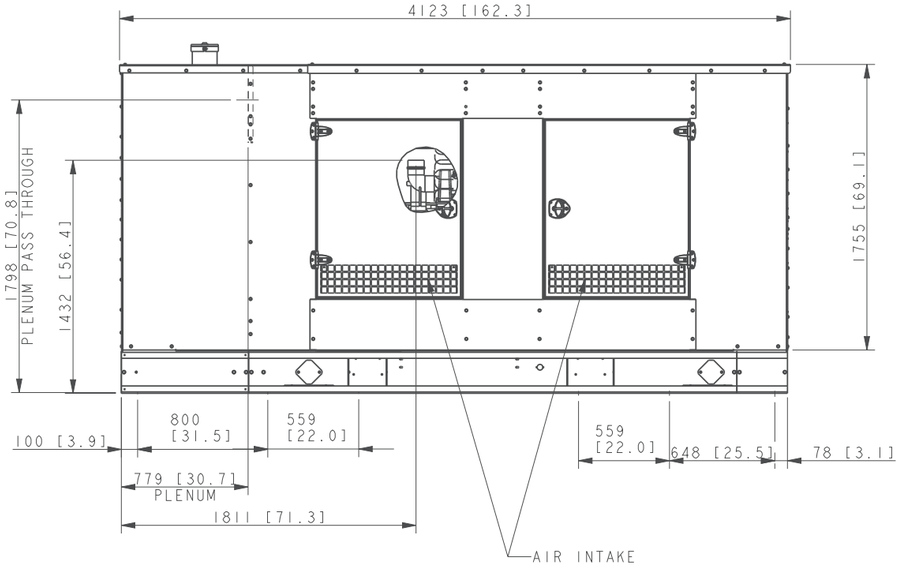
EXHIBIT 'C'

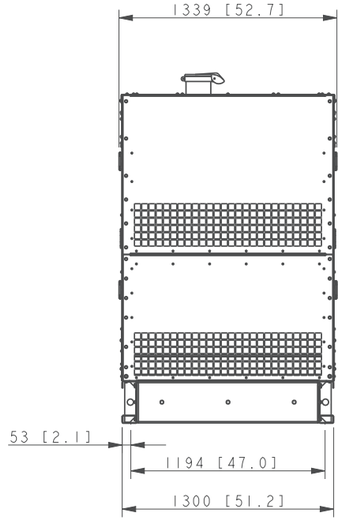
MODEL	ENCLOSURE WEIGHT KG [LBS]
STEEL WEATHER	302 [665]
STEEL SOUND	325 [715]
ALUMINIUM SOUND	177 [390]

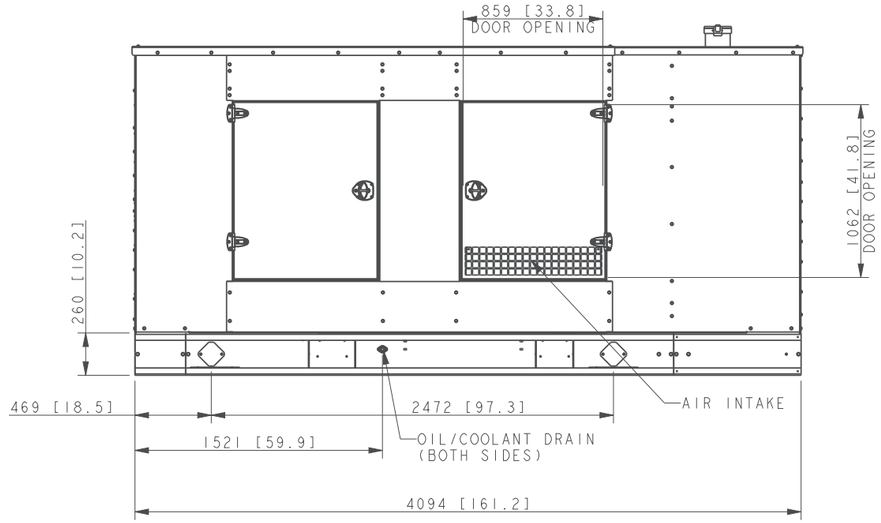




EXHAUST OUTLET
SCALE 0.400







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CA AQMD READY ENCLOSURES (NO SILENCER)

230-300 MODEL
JOHN DEERE TIER III

REV	DATE	ON COMPOSITE DWGS, SEE PART NO. FOR REVISION LEVEL	BY
F	2-5-13	SHEET 3 AND CA AQMD MODEL ADDED, SEE SHEET 4 [CT32174]	DJV
G	8-4-17	SEE SHEET 1 & 2 [CT177004]	SRM
H	11-22-18	VIEWS UPDATED, SEE SHEET 1,2 & 4 [CT191932]	YPW

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APPROVALS		DATE
DRAWN	SAM	2-5-13
CHECKED	KEM	2-5-13
APPROVED	KEM	2-5-13

KOHLER CO. METRIC PRO-E
POWER SYSTEMS, KOHLER, WI 53044 U.S.A.

TITLE: DIMENSION PRINT 230-300KW JD

SCALE 0.06 | CAD NO. | SHEET 3 of 4
DWG NO. ADV-7644 | D

EXHIBIT 'C'

MODEL	ENCLOSURE WEIGHT KG [LBS]
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STEEL SOUND	325 [715]
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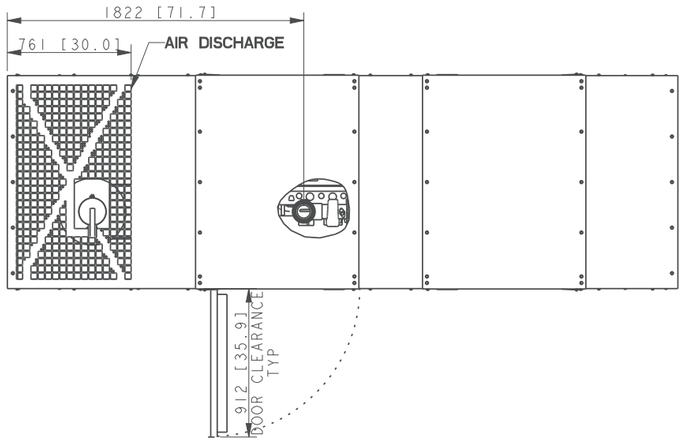
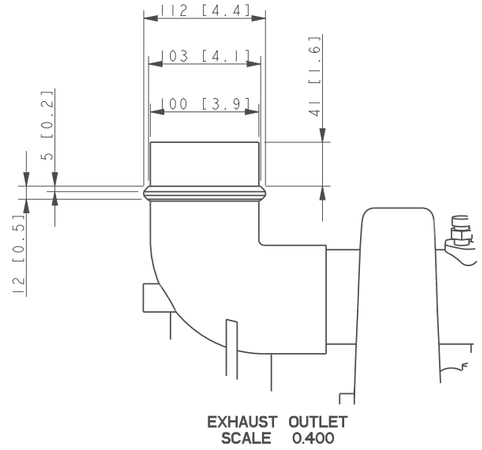
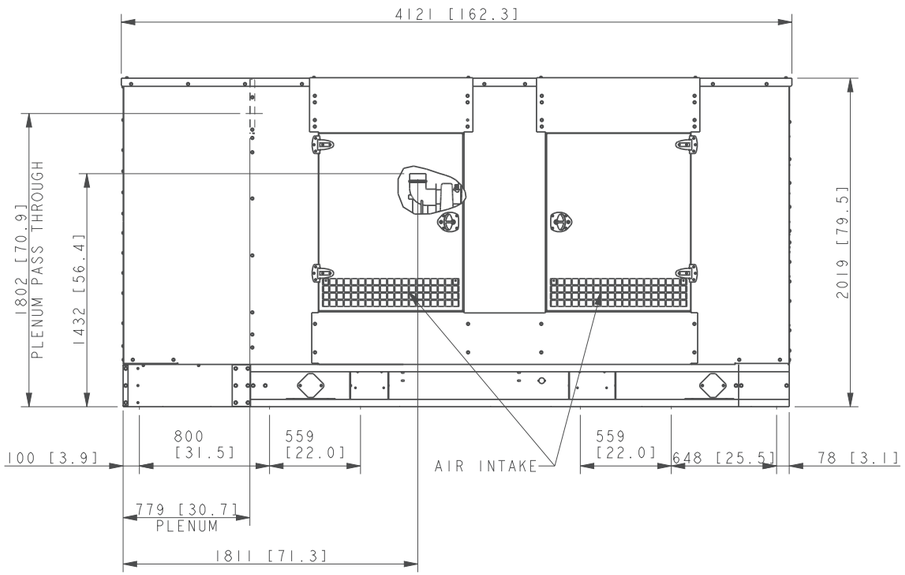
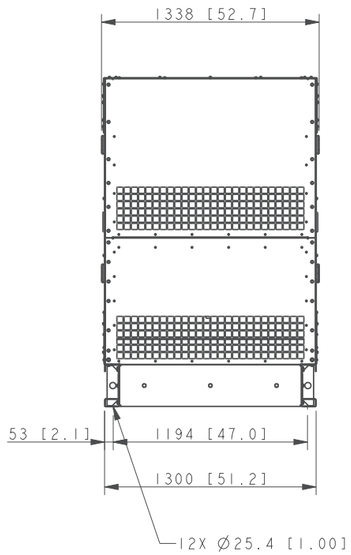
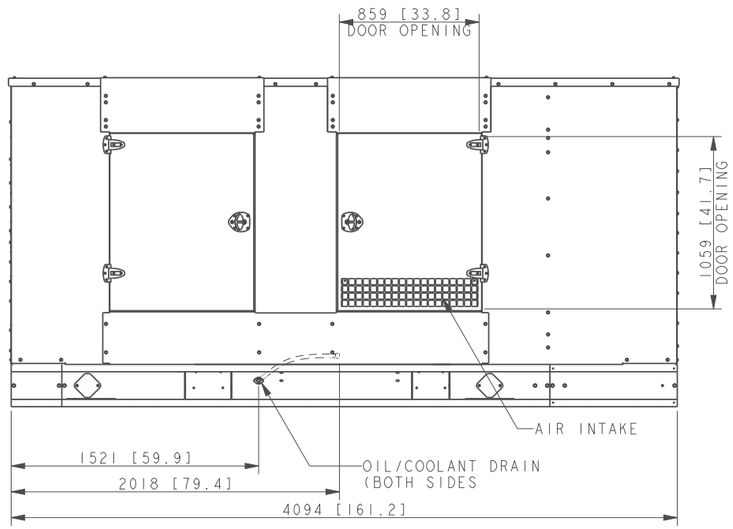




EXHAUST OUTLET
SCALE 0.400







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DIMENSIONS IN [] ARE IN ENGLISH EQUIVALENTS.

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230-300 MODEL
JOHN DEERE TIER III
IBC/ OSHPD

REV	DATE	ON COMPOSITE DWGS, SEE PART NO. FOR REVISION LEVEL	BY
F	2-5-13	SHEET 4 AND CA AQMD MODEL ADDED, SEE SHEET 3 [CT32174]	SAM
G	8-4-17	SEE SHEET 1 & 2 [CT177004]	SRM
H	11-22-18	VIEWS UPDATED, SEE SHEET 1,2 & 3 [CT191932]	YPW

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APPROVALS		DATE
DRAWN	SAM	2-5-13
CHECKED	KEM	2-5-13
APPROVED	KEM	2-5-13

KOHLER CO. METRIC PRO-E
POWER SYSTEMS, KOHLER, WI 53044 U.S.A.

TITLE: DIMENSION PRINT 230-300KW JD

SCALE 0.06 | CAD NO. | SHEET 4 of 4

DWG NO. ADV-7644 | D

EXHIBIT 'C'

KOHLER®

Model: KEP

Automatic Transfer Switches
Service Entrance Rated

Controller

- Decision-Maker® MPAC 1500

Ratings

Power Switching Device	Current	Voltage, Frequency
Molded case (MCCB)	200	208- 240 VAC 60 Hz
	100- 1200	208- 480 VAC 60 Hz
Insulated Case (ICCB)	800- 4000	208- 480 VAC, 60 Hz

Transfer Switch Standard Features

Enclosed Contact Power Switching Units

- Service entrance automatic transfer switches incorporate an isolating mechanism and overcurrent protection on the utility supply, eliminating the need to have a separate, upstream utility source circuit breaker/disconnect switch.
- UL 1008 listed, file #58962
- IBC seismic certification available
- Fully enclosed silver alloy contacts provide high withstand rating.
- 3-cycle short circuit current withstand-tested in accordance with UL 1008
- Completely separate utility and generator set power switching units provide redundancy (no common parts) and are easy to service.
- Utility disconnect power switching units have overcurrent protection; generator disconnect is available with or without overcurrent protection:
  - Molded case circuit breakers (MCCB) include thermal-magnetic or electronic trip overcurrent protection (80% rated).
  - Molded case switches (MCSW) do not include overcurrent protection (100% rated) (available on generator disconnect only).
  - Insulated case circuit breakers (ICCB) include electronic trip overcurrent protection (100% rated).
  - Insulated case switches (ICSW) do not include overcurrent protection (100% rated) (available on generator disconnect only).
- Inherent stored-energy design prevents damage if manually switched while in service.
- Heavy duty brushless gear motor and operating mechanism provide mechanical interlocking and extreme long life with minimal maintenance.
- Safe manual operation permits easy operation even under adverse conditions.
- All mechanical and control devices are visible and readily accessible.
- Padlockable service disconnect control switch
- Status indicators
- Two-position control circuit isolation switch disconnects utility power to the transfer switch controller.
- Load shed (Forced transfer from Emergency to OFF). (Customer-supplied signal [contact closure] is required for the forced transfer to OFF function.)
- NEMA 1, 3R, 4X and 12 enclosures are available.

Service Disconnect Switch

- Service disconnect to OFF position
- Two-position switch with padlockable cover disconnects the normal and emergency sources.
- Controller display shows Service Disconnected and the NOT IN AUTO LED flashes.
- Lamp illuminates to indicate that the switch is in the DISCONNECT position.

EXHIBIT 'C'

Automatic Transfer Switch Controller

The Decision-Maker® MPAC 1500 Automatic Transfer Switch Controller is used on service entrance transfer switch models.

Decision-Maker® MPAC 1500 Controller

- LCD display, 4 lines x 20 characters, backlit
- Complete programming and viewing capability at the door using the keypad and LCD display
- LED indicators: Source available, transfer switch position, service required (fault), and “not in auto”
- Modbus communication is standard
- Programmable voltage and frequency pickup and dropout settings
- Programmable time delays
- Programmable generator exerciser
- Time-based load control
- Current-based load control (current sensing kit required)
- Two programmable inputs and two programmable outputs (one programmable input and one programmable output are used for factory connections on these models and are not available for customer connection)
- Up to four I/O extension modules available
- RS-485 communication standard
- Ethernet communication standard
- Three-source system
- Prime power

For more information about Decision-Maker® MPAC 1500 features and functions, see specification sheet G11- 128.

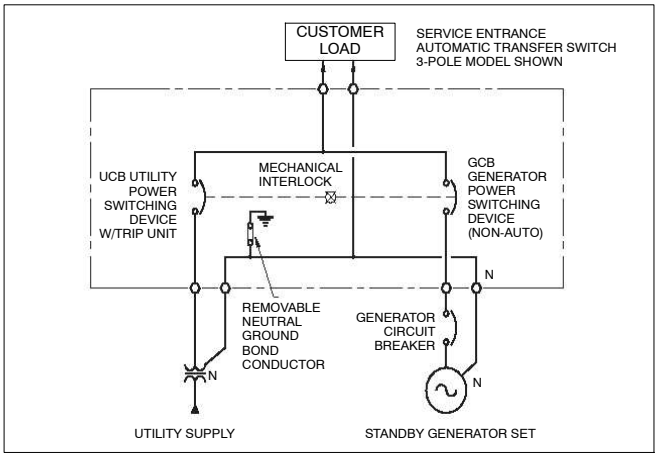
Ratings

Withstand Current Ratings in RMS Symmetrical Amperes *
(No upstream circuit breaker protection required)

Power Switching Device	Switch Rating, Amps	Voltage, Max.	Amps RMS @ 240 V	Amps RMS @ 480 V
Molded case	100	600	65,000	25,000
	150			
	200	**240**	100,000	NA
	250	600	65,000	65,000
	400	600	65,000	50,000
	600			
	800			
	1000			
	1200			
Insulated case	800	600	100,000	100,000
	1000			
	1200			
	1600			
	2000			
	2500			
	3000			
	4000			

* With molded case/insulated case switching devices equipped with integral overcurrent protection. (UL 1008 WCR)

Typical Single-Line Diagram



Application Data

Auxiliary Position-Indicating Contacts	
MCCB Models	Use programmable digital outputs
ICCB Models	3 Normal, 2 Emergency Rated 2.5 A @ 24/48 VDC, 6 A @ 480VAC

Environmental Specifications	
Operating Temperature	- 15°C to 50°C (5°F to 122°F)
Storage Temperature	- 20°C to 70°C (- 4°F to 158°F)
Humidity	95% noncondensing

EXHIBIT 'C'

Cable Sizes

Model	Amps	Cable Sizes, Al/Cu Wire		
		Circuit Breaker (per Phase)	Neutral	Ground
KEP, MCCB	100	(1) #14 - 1/0 AWG	(3) #14 - 2/0 AWG	(3) #14 - 1/0 AWG
	150	(2) #2 - 4/0 AWG		
	200	(1) #6 - 350 KCMIL	(3) #6 - 350 KCMIL	
	250			
	400	(2) 2/0 - 500 KCMIL	(6) 2/0 - 500 KCMIL	(3) #6 - 350 KCMIL
	600			
	800	(3) 2/0 - 500 KCMIL	(9) 2/0 - 500 KCMIL	
	1000 1200	(4) 4/0 - 500 KCMIL	(12) 4/0 - 500 KCMIL	(3) #4 - 600 KCMIL or (6) 1/0 - 250 KCMIL
KEP, ICCB	800	(3) 3/0 - 750 KCMIL	(9) 3/0 - 750 KCMIL	(3) #6 - 250 KCMIL
	1000	(4) 3/0 - 750 KCMIL	(12) 3/0 - 750 KCMIL	
	1200			
	1600	(5) 3/0 - 750 KCMIL	(15) 3/0 - 750 KCMIL	
	2000	(6) 3/0 - 750 KCMIL	(18) 3/0 - 750 KCMIL	
	2500	(8) 3/0 - 750 KCMIL	(24) 3/0 - 750 KCMIL	
	3000	(9) 3/0 - 750 KCMIL	(27) 3/0 - 750 KCMIL	
	4000	(12) 3/0 - 750 KCMIL	(36) 3/0 - 750 KCMIL	

Circuit Breaker Specifications

KEP Molded Case Circuit Breakers (MCCB)

Breaker			Utility Disconnect			Generator Disconnect (note that units with MCSW selected will not have a trip unit)		
Mfr	Amps	Model	Trip Unit	Type	Trip Unit Function	Trip Unit	Type	Trip Unit Function
ABB	100	Tmax Ts3	NI	BM/EL	TM	NI	BM/EL	TM
	150	Tmax Ts3						
	200	Tmax Ts3						
	250 2P/3P	Tmax T5	PR221	Electronic	LS/I	PR221	Electronic	LS/I
	250 4P	Isomax S5	PR211	Electronic	LI	PR211	Electronic	LI
	400	Tmax T6	PR221	Electronic	LS/I	PR221	Electronic	LS/I
	600	Tmax T6						
	800	Tmax T6						
	1000	Tmax T7	PR331/P	Electronic	LSIG	PR231/P		
	1200	Tmax T7						

NI = Non-interchangeable
TM = Thermal/Magnetic
BM/EL = Bimetal/Electromagnet
MCSW = Molded Case Switch

KEP Insulated Case Circuit Breakers (ICCB)

Breaker			Utility Disconnect			Generator Disconnect (note that units with ICSW selected will not have a trip unit)		
Mfr	Model	Amps	Trip Unit	Type	Trip Unit Function	Trip Unit	Type	Trip Unit Function
Schneider	NW	800	ML 5.0A	Electronic	LSI	ML 3.0	Electronic	LI
	NW	1000	ML 6.0A	Electronic	LSIG	ML 3.0	Electronic	LI
	NW	1200						
	NW	1600						
	NW	2000						
	NW	2500						
	NW	3000						
	NW	4000						

ICSW = Insulated Case Switch
ML = Micrologic

EXHIBIT 'C'

Weights and Dimensions

Note: Always use the transfer switch dimension drawing for planning and installation. Weights and dimensions may vary for different configurations. See your local distributor for dimension drawings.

Weights and dimensions are shown for NEMA type 1 enclosures. Consult the factory for other enclosure types.

Molded Case Circuit Breaker (MCCB) Models									
		Dimensions, mm (in.)				Weight, kg (lb.)			Dimension Drawing
Model	Amps	Poles	Height	Width	Depth	2P	3P	4P	
KEP, MCCB	100-150	2,3,4	914 (36.0)	725 (28.5)	462 (18.2)	68 (150)	68 (150)	68 (150)	ADV-8612
	200	2,3	914 (36.0)	725 (28.5)	462 (18.2)	68 (150)	68 (150)	N/A	
	250	2,3,4	914 (36.0)	725 (28.5)	462 (18.2)	81 (178)	81 (178)	81 (178)	
	400	2,3,4	1231 (48.4)	995 (39.2)	486 (19.1)	195 (430)	195 (430)	195 (430)	ADV-8614
	600-800	2,3,4	1231 (48.4)	995 (39.2)	486 (19.1)	200 (441)	200 (441)	200 (441)	
	1000-1200	3,4	2009 (79.1)	864 (34.0)	515 (20.3)	N/A	247 (545)	254 (560)	ADV-8996

Insulated Case Circuit Breaker (ICCB) Models							
			Dimensions, mm (in.)			Weight, kg (lb.)	Dimension Drawing
Model	Amps	Poles	Height	Width	Depth		
KEP, ICCB	800	3	2324 (91.5)	914 (36.0)	1219 (48.0)	544 (1200)	ADV-8618
		4	2324 (91.5)	914 (36.0)	1219 (48.0)	635 (1400)	
	1000-1200	3	2324 (91.5)	914 (36.0)	1219 (48.0)	553 (1220)	
		4	2324 (91.5)	914 (36.0)	1219 (48.0)	644 (1420)	
	1600	3	2324 (91.5)	914 (36.0)	1372 (54.0)	598 (1320)	
		4	2324 (91.5)	914 (36.0)	1372 (54.0)	625 (1380)	
	2000	3	2324 (91.5)	914 (36.0)	1372 (54.0)	607 (1340)	
		4	2324 (91.5)	914 (36.0)	1372 (54.0)	644 (1420)	
	2500	3	2324 (91.5)	914 (36.0)	1524 (60.0)	625 (1380)	
		4	2324 (91.5)	1067 (42.0)	1524 (60.0)	662 (1460)	
	3000	3	2324 (91.5)	914 (36.0)	1524 (60.0)	644 (1420)	
		4	2324 (91.5)	1067 (42.0)	1524 (60.0)	680 (1500)	
	4000	3	2324 (91.5)	1372 (54.0)	1524 (60.0)	907 (2000)	

Codes and Standards

The ATS meets or exceeds the requirements of the following specifications:

- EN61000-4-4 Fast Transient Immunity Severity Level 4
- EN61000-4-5 Surge Immunity Class 4 (voltage sensing and programmable inputs only)
- IEC Specifications for EMI/EMC Immunity:
  - CISPR 11, Radiated Emissions
  - IEC 1000-4-2, Electrostatic Discharge
  - IEC 1000-4-3, Radiated Electromagnetic Fields
  - IEC 1000-4-4, Electrical Fast Transients (Bursts)
  - IEC 1000-4-5, Surge Voltage
  - IEC 1000-4-6, Conducted RF Disturbances
  - IEC 1000-4-8, Magnetic Fields
  - IEC 1000-4-11, Voltage Dips and Interruptions
- IEC 60947-6-1, Low Voltage Switchgear and Control Gear; Multifunction Equipment; Automatic Transfer Switching Equipment
- IEEE Standard 446, IEEE Recommended Practice for Emergency and Standby Power Systems for Commercial and Industrial Applications
- IEEE 472 (ANSI C37.90A) Ring Wave Test
- NEMA Standard ICS 10- 2005, Electromechanical AC Transfer Switch Equipment
- NFPA 70, National Electrical Code
- NFPA 99, Essential Electrical Systems for Health Care Facilities
- NFPA 110, Emergency and Standby Power Systems
- Underwriters Laboratories UL 1008, Standard for Automatic Transfer Switches for Use in Emergency Standby Systems file #58962

EXHIBIT 'C'

Accessories

Accessories are available either factory-installed or as loose kits, unless otherwise noted.

❑ Digital Meter *

- Measure and display voltage, current, frequency, and power
- 35 programmable alarms
- LCD display, 67 x 62.5 mm (2.65 x 2.5 in.)
- Pushbutton operation
- Password- protected programming menus
- Two digital inputs
- Two digital outputs
- Two Form A relay outputs
- Serial port for optional network connections
- Data logging
- Factory- installed

* Meter kit not available on MCCB models with NEMA 3R enclosures.

❑ Heater, Anti-Condensation

- Hygrostat-controlled 120 VAC strip heater (customer-supplied voltage source required)
- 100 or 250 watts (sized for enclosure)
- Protective 15 Amp circuit breaker

❑ Literature Kits

- Production literature kit (one set of literature is included with each transfer switch)
- Overhaul literature kit

❑ RSA III Remote Serial Annunciator

- Monitors the generator set
- Monitors Normal and Emergency source status and connection
- Monitors ATS common alarm
- Allows remote testing of the ATS
- For more information, see specification sheet G6- 139.

❑ Seismic Certification

- Certification depends on application and geographic location. Contact your distributor for details.
- Available for the transfer switches and enclosures shown below:

ATS Type and Size		Enclosure, NEMA Type:			
Type	**Amps**	**1**	**3R**	**4X**	**12**
MCCB	100- 600			●	
MCCB	100- 1200	●	●		●
ICCB	800- 4000	●	●		

❑ Surge Protection Device (SPD)

- SPD available for the normal source supply
- Surge protection reduces transient voltages to harmless levels
- Protection modes: L-L / L-N / L-G / N-G
- Replaceable phase and neutral cartridges for service
- Frequency: 50- 60 Hz
- Operating Temperature Range: - 40 to 176°F (- 40 to 80°C)
- Remote contacts for customer-supplied status indicators:
  Contacts: 1 NO, 1 NC
  Min Load: 12VDC / 10 mA
  Max. Load: 250 VAC / 1 A
  Wire Size (max.): 16AWG
- Fuse protection: 30 amps / 600 V
- UL 1449, 3rd Edition for Type 2 applications
- IEC 61-643-1, 2nd Edition T2/11
- See additional specifications below

❑ Extended Warranties

- 2-year basic
- 5-year basic
- 5-year comprehensive
- 10-year major components

Additional Controller Accessories

See the controller specification sheet for more information.

❑ Accessory Modules

- Alarm Module
- External Battery Supply Module
- Input/Output Module
- High-Power Input/Output Module

❑ Current Sensing Kit

❑ Line-to-Neutral Voltage Monitoring

❑ Padlockable User Interface Cover

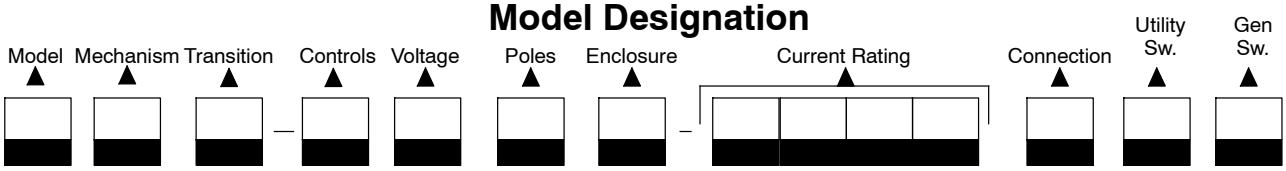
❑ Supervised Transfer Control Switch

SPD Specifications								
Nominal Voltage (V ±15%)	**Max. Discharge Current (kA)**	**Phase**	**Poles**	**UL VPR 3rd Ed (L-N/N-G/L-G) (kV)**	**Limiting Voltage, (L-N/N-G/L-G) (kV)**		**Short Circuit Withstand Current (kA)**	**Maximum Continuous Operating Voltage (VAC)**
					at 3kAmps	**at 10kAmp**		
240/120	40	Split	3	0.6 / 1.2 / 0.7	0.6 / 0.4 / 0.6	0.8 / 0.7 / 0.8	200	175 / 350
208/120	40	Wye	4	0.6 / 1.2 / 0.7	0.6 / 0.4 / 0.6	0.8 / 0.7 / 0.8	200	175 / 350
480/277	40	Wye	4	1.0 / 1.2 / 1.1	1.0 / 0.4 / 1.0	1.2 / 0.7 / 1.2	200	320 / 640
240/120	40	HLD	4	1.0 / 1.2 / 1.1	1.0 / 0.4 / 1.0	1.2 / 0.7 / 1.2	200	320 / 640
600/347	40	Wye	4	1.3 / 1.2 / 1.4	1.3 / 0.4 / 1.3	1.5 / 0.7 / 1.5	200	440 / 880

EXHIBIT 'C'

KOHLER CO., Kohler, Wisconsin 53044 USA
Phone 920-457-4441, Fax 920-459-1646
For the nearest sales and service outlet in the US and Canada, phone 1-800-544-2444
KOHLERPower.com

Model Designation



Record the transfer switch model designation in the boxes. The transfer switch model designation defines characteristics and ratings as explained below.

Sample Model Designation: KEP-DMTA-0400S-NK

Model

K: Kohler

Mechanism

E: Service Entrance Rated

Transition

P: Programmed

Controller

D: Decision-Maker® MPAC 1500, Automatic

Voltage/Frequency

C:	208 Volts/60 Hz	M:	480 Volts/60 Hz
F:	240 Volts/60 Hz	R:	220 Volts/60 Hz
K:	440 Volts/60 Hz		

Number of Poles/Wires

N: 2 Poles/3 Wires, Solid Neutral
T: 3 Poles/4 Wires, Solid Neutral
V: 4 Poles/4 Wires, Switched Neutral

Enclosure

A:	NEMA 1	C:	NEMA 3R
B:	NEMA 12	F:	NEMA 4X

Current, Amps

0100	0600	2000
0150	0800	2500
0200	1000	3000
0250	1200	4000
0400	1600	

Connections

S: Standard

Utility Switching Device

M: MCCB w/thermal magnetic trip 100- 200 A
N: MCCB w/electronic trip 250- 800 A
P: MCCB w/electronic trip and GF 1000-1200 A
R: ICCB w/electronic trip 800 A
T: ICCB w/electronic trip and GF 1000- 4000 A

Generator Switching Device

K: MCSW 100- 1200 A
M: MCCB w/thermal magnetic trip 100- 200 A
N: MCCB w/electronic trip 250- 1200 A
Q: ICSW 800- 4000 A
R: ICCB w/electronic trip 800- 4000 A

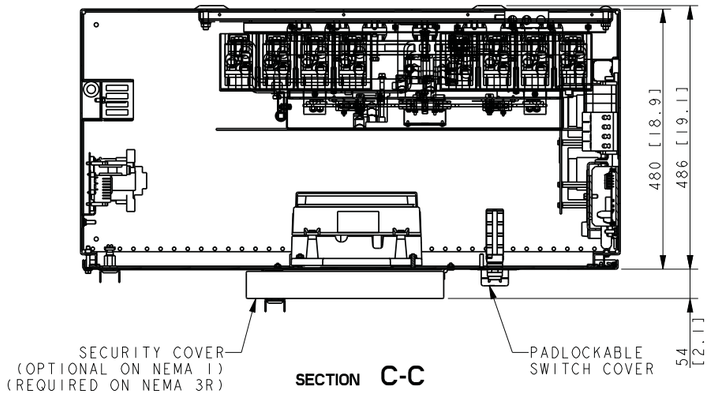
Note: Some selections are not available for every model. Contact your Kohler distributor for availability.

DISTRIBUTED BY:

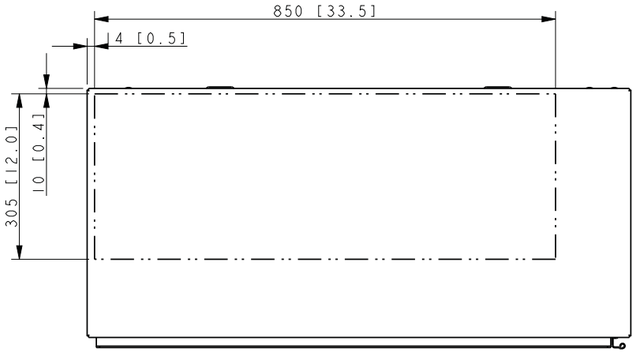
Availability is subject to change without notice. Kohler Co. reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever. Contact your local Kohler® generator distributor for availability.

EXHIBIT 'C'

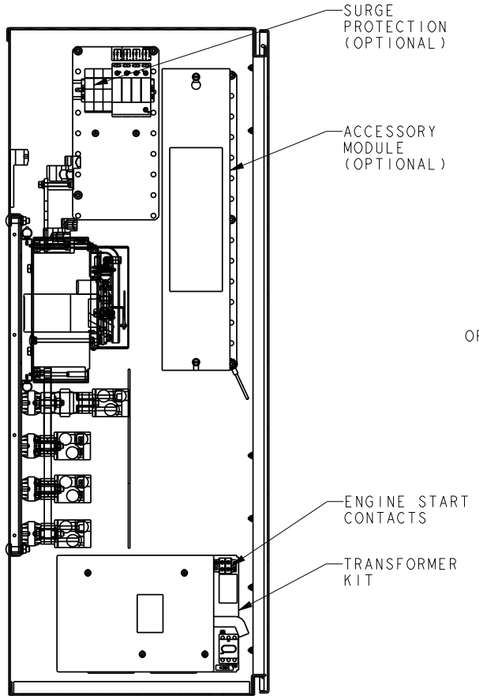
NOTES:
1. DIMENSION IN [ ] ARE INCHES.
2. FINISH:
   NEMA 1 & 3R: ANSI 49 GRAY
3. REFER TO OPERATOR'S MANUAL PRIOR TO INSTALLING SWITCH & OPERATION OF SWITCH.
4. OMIT CENTER POLE ON 2 POLE SWITCHES.
5. FOR SEISMIC CERTIFIED UNITS, REFER TO ADV-7456 AND INSTALLATION INSTRUCTIONS.



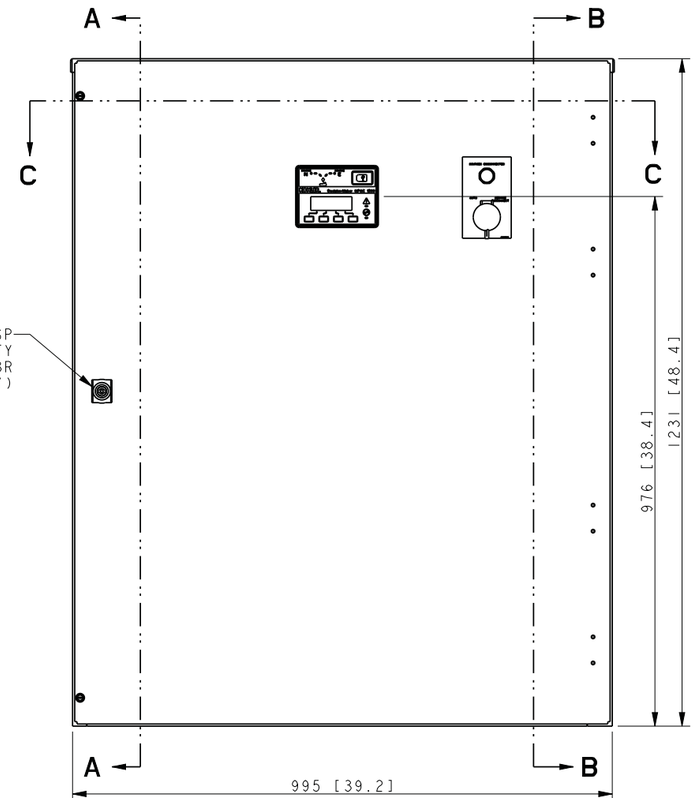
SECTION C-C



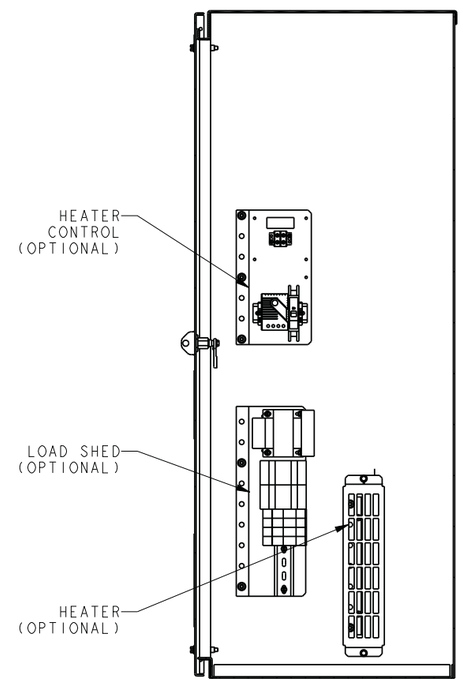
RECOMMENDED ENTRANCE AREA TOP & BOTTOM



SECTION B-B



NOTE:
ALLOW FOR MINIMUM DOOR SWING CLEARANCE OF 1032 [40.7] IN FRONT OF CABINET.



SECTION A-A

11112

REV	DATE	ON COMPOSITE DWGS, SEE PART NO. FOR REVISION LEVEL	BY
-	8-27-13	NEW DRAWING [CT54441]	BTW
A	1-14-15	VIEWS UPDATED; [CT112665]	BTW

UNLESS OTHERWISE SPECIFIED: 1) DIMENSIONS ARE IN MILLIMETERS 2) TOLERANCES ARE: X.XX ± 0.25, X.X ± 1.0, X ± 1.5, ANGLES ± 0° 30'. SURFACE FINISH MAX. THIRD ANGLE PROJECTION

APPROVALS		DATE
DRAWN	BTW	8-27-13
CHECKED	BTW	8-27-13
APPROVED	MTL	8-27-13

TITLE: DIMENSION PRINT

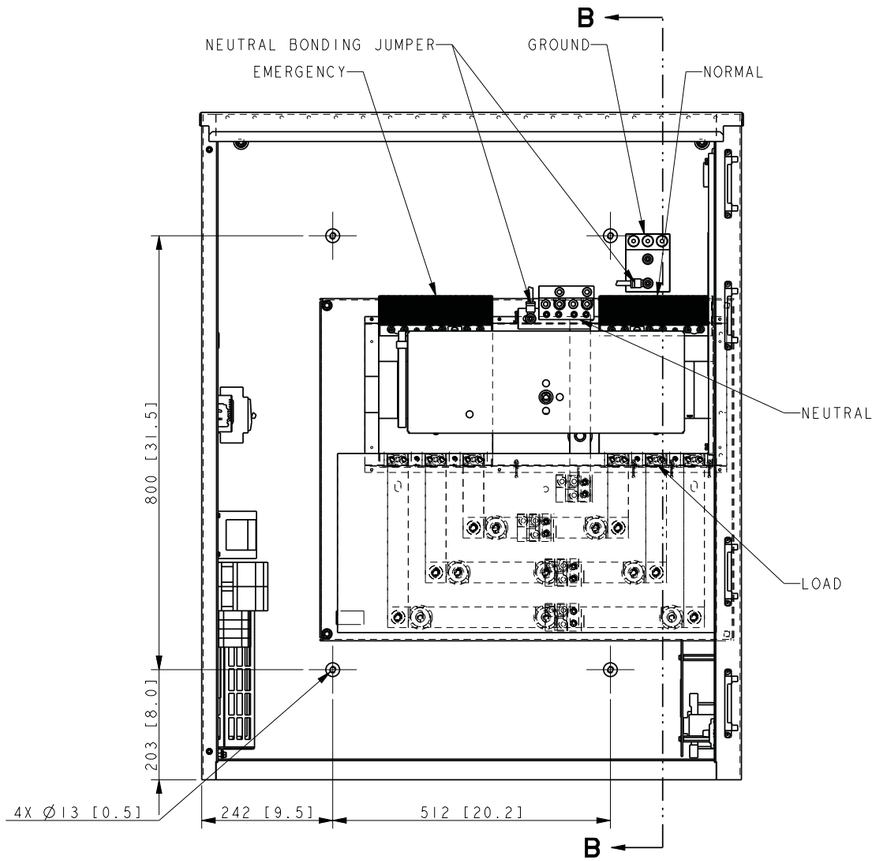
SCALE 0.20 | CAD NO. | SHEET 1 of 2

DWG NO. ADV-8614 | D

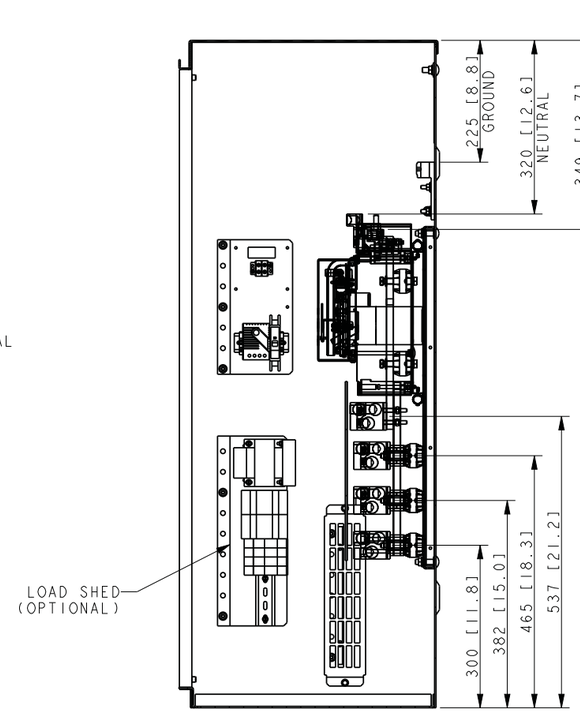
SEE ADV-8565 FOR FULL MODEL CODE DEFINITION

STYLE	MECHANISM	TRANSITION	MPAC LOGIC	VOLTS	POLES	NEUTRAL	ENCLOSURE	AMPS	CONNECTION
KEP MCCB	SERVICE ENT	PROGRAMMED	1500	208-480	2,3,4	SOLID,SW	1,3R	400,600,800	STANDARD

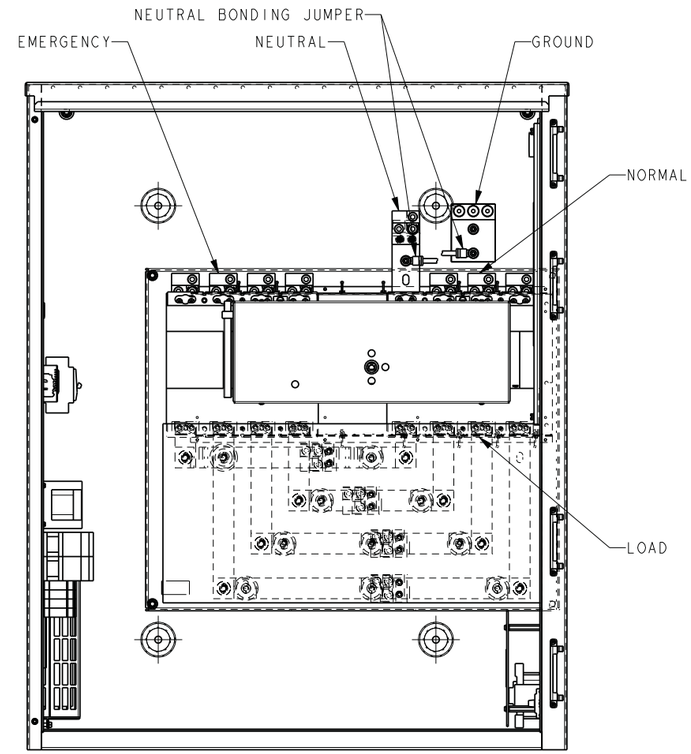
EXHIBIT 'C'



800 AMP 3 POLE SHOWN
(DOOR REMOVED TO SHOW INTERNAL COMPONENTS)
NOTE: OMIT CENTER POLE ON 2 POLES SWITCHES.



SECTION B-B



800 AMP 4 POLE SHOWN
(DOOR REMOVED TO SHOW INTERNAL COMPONENTS)

SEISMIC MOUNTING NOTE:
FOR SEISMIC CERTIFIED UNITS,
MOUNT WITH THE FOLLOWING HARDWARE:
WALL MOUNTED (STEEL)
Ø9.53 [.375] Dia. SAE GRADE 1/ ASTM A307 BOLTS.
WALL MOUNTED (CONCRETE)
Ø9.53 [.375] Dia. HILTI KWIK BOLT TZ-CS WITH MIN. EMBEDMENT 50.8 [2.00]; EDGE DISTANCE OF 101.6 [4.00] ON A 101.6 [4.00] THICK 4000 PSI CONDRETE WALL. HARDWARE TO COMPLY WITH SPECIFICATIONS ON ADV-7456.

SERVICE DISCONNECT BREAKERS ARE 80% RATED. CONTINUOUS LOAD CURRENT IS NOT TO EXCEED 80% OF BREAKER RATING.

SCREW TYPE TERMINALS FOR EXTERNAL POWER CONNECTIONS			
SWITCH RATING (AMPS)	RANGE OF AL/CU WIRE SIZE		
	CIRCUIT BREAKER PER PHASE	NEUTRAL	GROUND
400	(2) 2/0-500 KCMIL	(6) 2/0-500 KCMIL	(3) #6-350 KCMIL
600	(2) 2/0-500 KCMIL	(6) 2/0-500 KCMIL	(3) #6-350 KCMIL
800	(3) 2/0-500 KCMIL	(9) 2/0-500 KCMIL	(3) #6-350 KCMIL

APPROX. WEIGHTS KG (LBS)			
AMPS	2 POLE	3 POLE	4 POLE
400	195 [430]	195 [430]	195 [430]
600	200 [441]	200 [441]	200 [441]
800	200 [441]	200 [441]	200 [441]

REV	DATE	ON COMPOSITE DWGS, SEE PART NO. FOR REVISION LEVEL	BY
-	8-27-13	NEW DRAWING [CT54441]	BTW
A	1-14-15	SEE SHEET 1 [CT112665]	BTW

UNLESS OTHERWISE SPECIFIED: (1) DIMENSIONS ARE IN MILLIMETERS (2) TOLERANCES ARE: X.XX ± 0.25, X.X ± 1.0, X ± 1.5, ANGLES ± 0° 30' SURFACE FINISH MAX. THIRD ANGLE PROJECTION

APPROVALS		DATE
DRAWN	BTW	8-27-13
CHECKED	BTW	8-27-13
APPROVED	MTL	8-27-13

TITLE: DIMENSION PRINT
SCALE 0.20 | CAD NO. | SHEET 2 of 2
DWG NO. ADV-8614 | D

EXHIBIT 'C'

B. Sketches

EXHIBIT 'C'

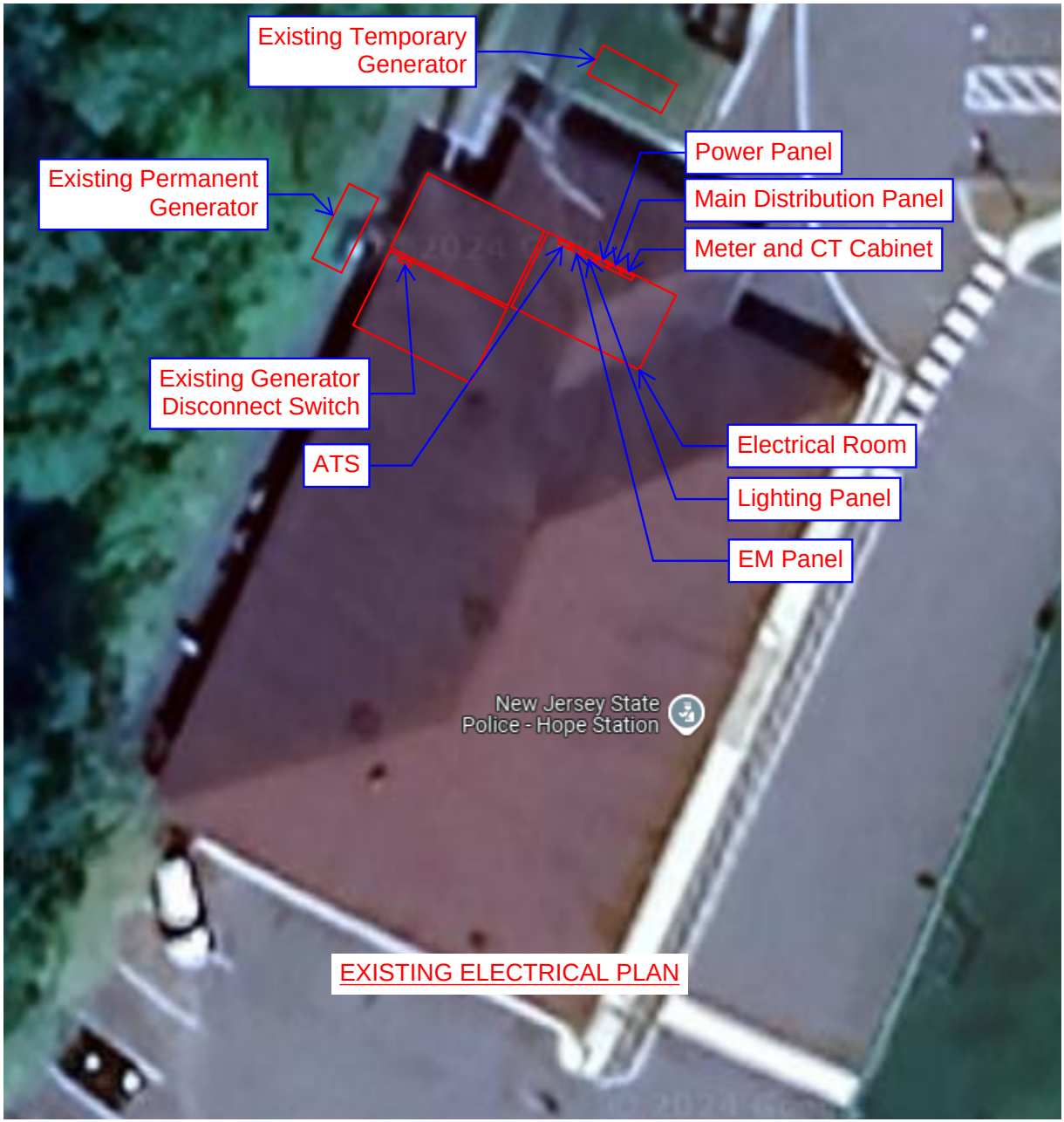

Existing Temporary Generator
Existing Permanent Generator
Power Panel
Main Distribution Panel
Meter and CT Cabinet
Existing Generator Disconnect Switch
ATS
Electrical Room
Lighting Panel
EM Panel
New Jersey State Police - Hope Station
EXISTING ELECTRICAL PLAN

EXHIBIT 'C'

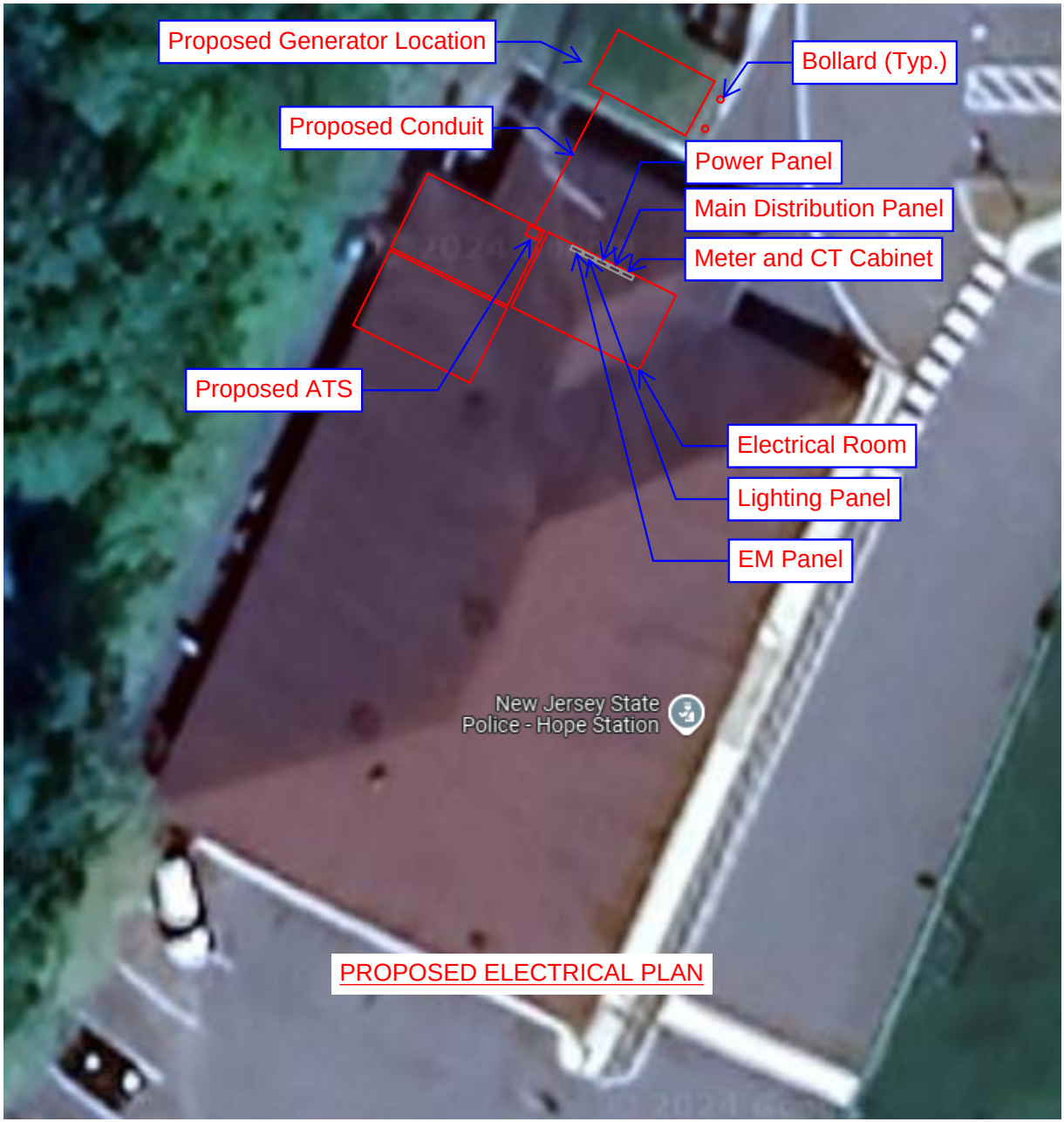

Proposed Generator Location
Bollard (Typ.)
Proposed Conduit
Power Panel
Main Distribution Panel
Meter and CT Cabinet
Proposed ATS
Electrical Room
Lighting Panel
EM Panel
New Jersey State Police - Hope Station
PROPOSED ELECTRICAL PLAN

EXHIBIT 'C'

C. Construction Cost Estimate

EXHIBIT 'C'

Date:10/30/24

COST ESTIMATE

Client: New Jersey State Police
Project: Generator Upgrade
Discipline : **Electrical**

Description: Hope Station
Prepared By: IB, EJC

Item #	Description	Quantity		Unit Price $		Total $		Total
		Amt	Unit	Material	Labor	Material	Labor	
1	Demolition	1	LS	$ -	$ 5,000	$ -	$ 5,000	$ 5,000
2	Mobilization	1	Ea.	$ -	$ 30,000	$ -	$ 30,000	$ 30,000
3	Excavation and Backfill	100	LF	$ 4	$ 30	$ 400	$ 3,000	$ 3,400
4	3/4" Conduit	200	LF	$ 5	$ 9	$ 1,000	$ 1,800	$ 2,800
5	1" Conduit	200	LF	$ 8	$ 11	$ 1,600	$ 2,200	$ 3,800
6	4" Conduit	150	LF	$ 50	$ 30	$ 7,500	$ 4,500	$ 12,000
7	Wiring #18 TP	25	CLF	$ 310	$ 85	$ 7,750	$ 2,125	$ 9,875
8	Wiring #1/0	4	CLF	$ 320	$ 174	$ 1,280	$ 696	$ 1,976
9	Wiring #600kcmil	16	CLF	$ 2,100	$ 440	$ 33,600	$ 7,040	$ 40,640
10	Diesel Generator and ATS	1	Ea.	$ 200,000	$ 20,000	$ 200,000	$ 20,000	$ 220,000
11	Ground Rod	6	Ea.	$ 50	$ 80	$ 300	$ 480	$ 780
12	Bare Copper Ground Wire	1	CLF	$ 115	$ 63	$ 115	$ 63	$ 178
13	Concrete Pad	2	CY	$ 1,800	$ 1,850	$ 3,600	$ 3,700	$ 7,300
14	Bollards	2	Ea.	$ 120	$ 600	$ 240	$ 1,200	$ 1,440
15	Miscellaneous Supplies	1	LS	$ 5,000	$ 1,200	$ 5,000	$ 1,200	$ 6,200
16	Testing	1	LS	$ -	$ 1,200	$ -	$ 1,200	$ 1,200
17	Programming	1	LS	$ -	$ 3,600	$ -	$ 3,600	$ 3,600
	SUB-TOTAL					**$ 262,385**	**$ 87,804**	**$ 350,189**
							Overhead and Profit (20%)	$ 70,038
							Estimated Design Fee	$ 120,000
							Estimated Construction Administration	$ 30,000
							BUDGETARY COST	**$ 570,227**

EXHIBIT 'C'