

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK

# CITY OF PORTLAND

## BUILDING INSPECTION

# PERMIT

Permit Number: 091290

PERMIT ISSUED

Please Read Application And Notes, If Any, Attached

This is to certify that City Of Portland/ES Boulos Company

has permission to Install standby emergency generator.

NOV 24 2009

AT 109 Middle St

CBL 028 N001001

City of Portland

provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statutes of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of buildings and structures, and of the application on file in this department.

Apply to Public Works for street line and grade if nature of work requires such information.

Notification of inspection must be given and written permission procured before this building or part thereof is lathed or otherwise closed-in. 24 HOUR NOTICE IS REQUIRED.

A certificate of occupancy must be procured by owner before this building or part thereof is occupied.

### OTHER REQUIRED APPROVALS

Fire Dept. Bjornwall (202)

Health Dept. \_\_\_\_\_

Appeal Board \_\_\_\_\_

Other \_\_\_\_\_

Department Name

*Ann Burke* 11/24/09  
Director - Building & Inspection Services

**PENALTY FOR REMOVING THIS CARD**

SCANNED



**CITY OF PORTLAND, MAINE**  
 Department of Building Inspections

**Original Receipt**

Nov 18 2017

Received from S. F. ...

Location of Work 109 ...

Cost of Construction \$ \_\_\_\_\_ Building Fee: \_\_\_\_\_

Permit Fee \$ \_\_\_\_\_ Site Fee: \_\_\_\_\_

Certificate of Occupancy Fee: \_\_\_\_\_

**Total:** 1,000.00

Building (1L)  Plumbing (1S) \_\_\_\_\_ Electrical (1Z) \_\_\_\_\_ Site Plan (U2) \_\_\_\_\_

Other \_\_\_\_\_

CBL: 086 W 001

Check #: 4195 **Total Collected \$** 1,000.00

**No work is to be started until permit issued.  
 Please keep original receipt for your records.**

Taken by: [Signature]

WHITE - Applicant's Copy  
 YELLOW - Office Copy  
 PINK - Permit Copy

# City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 09-1290	Issue Date:	CBL: 028 N001001
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Location of Construction: 109 Middle St	Owner Name: City Of Portland	Owner Address: 389 Congress St	Phone:
Business Name: Portland Police Department	Contractor Name: ES Boulos Company	Contractor Address: 45 Bradley Drive Westbrook	Phone: 2074643706
Lessee/Buyer's Name	Phone:	Permit Type: Alterations - Commercial	Zone: B-3

Past Use: Police Department	Proposed Use: Police Department / Install standby emergency generator.	Permit Fee: \$1,000.00	Cost of Work: \$98,000.00	CEO District: 1
Proposed Project Description: Install standby emergency generator.		FIRE DEPT: <i>w/conditions</i> 11/16/09	INSPECTION: Use Group: <i>NA</i> Type: <i>E generator</i>	
		Signature: <i>[Signature]</i>	Signature: <i>JMB 11/24/09</i>	
PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)				
Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied				
Signature: _____ Date: _____				

Permit Taken By: gg	Date Applied For: 11/13/2009	<b>Zoning Approval</b>		
<ol style="list-style-type: none"> <li>This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.</li> <li>Building permits do not include plumbing, septic or electrical work.</li> <li>Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..</li> </ol>		<b>Special Zone or Reviews</b> <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input checked="" type="checkbox"/> Site Plan <i>exemption for</i> Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/> <i>ok with condit</i> Date: <i>11/16/09</i>	<b>Zoning Appeal</b> <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied Date: _____	<b>Historic Preservation</b> <input checked="" type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Date: <i>[Signature]</i>

PERMIT ISSUED

NOV 24 2009

City of Portland

### CERTIFICATION

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

\_\_\_\_\_  
SIGNATURE OF APPLICANT ADDRESS DATE PHONE

\_\_\_\_\_  
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE DATE PHONE

**City of Portland, Maine - Building or Use Permit**

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

<b>Permit No:</b> 09-1290	<b>Date Applied For:</b> 11/13/2009	<b>CBL:</b> 028 N001001
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<b>Location of Construction:</b> 109 Middle St	<b>Owner Name:</b> City Of Portland	<b>Owner Address:</b> 389 Congress St	<b>Phone:</b>
<b>Business Name:</b> Portland Police Department	<b>Contractor Name:</b> ES Boulos Company	<b>Contractor Address:</b> 45 Bradley Drive Westbrook	<b>Phone</b> (207) 464-3706
<b>Lessee/Buyer's Name</b>	<b>Phone:</b>	<b>Permit Type:</b> Alterations - Commercial	

<b>Proposed Use:</b> Police Department / Install standby emergency generator.	<b>Proposed Project Description:</b> Install standby emergency generator.
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**Dept:** Zoning      **Status:** Approved with Conditions      **Reviewer:** Marge Schmuckal      **Approval Date:** 11/16/2009**Note:**      **Ok to Issue:** 

- 1) This permit is being issued based upon an EMERGENCY generator status. If the status of the generator changes and becomes permanent, this office will need a separate application, review and approval. At that time, the maximum noise requirements shall be met.
- 2) This permit is being approved on the basis of plans submitted. Any deviations shall require a separate approval before starting that work.

**Dept:** Building      **Status:** Approved with Conditions      **Reviewer:** Jeanine Bourke      **Approval Date:** 11/24/2009**Note:**      **Ok to Issue:** 

- 1) The appliance and venting shall be installed in accordance with the UL listing, IMC 2003 and NFPA 211.
- 2) Separate permits are required for any electrical, plumbing, sprinkler, fire alarm or HVAC or exhaust systems. Separate plans may need to be submitted for approval as a part of this process.
- 3) Application approval based upon information provided by applicant. Any deviation from approved plans requires separate review and approval prior to work.

**Dept:** Fire      **Status:** Approved with Conditions      **Reviewer:** Ben Wallace Jr.      **Approval Date:** 11/16/2009**Note:**      **Ok to Issue:** 

- 1) Installation shall comply with NFPA 1, 101, and 110.

**Comments:**

11/16/2009-mes: site plan exemption given to planning

11/20/2009-jmb: Spoke to Russell C. About the pad details, he will email. Also this is a skid mounted generator with diesel tank below, no mounting requirements. He also verified the exhaust duct will travel back into the building and tie into the existing exhaust shaft. Received the fax with details, ok to issue pending planning approval.

11/20/2009-mes: received something from Kathy Alves concerning installing additional sound protection around the generator. Planning is still reviewing.

11/24/2009-gg: received granted site exemption on 11/24/09. /gg Filed with permit (Jeannie)



# General Building Permit Application

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

Location/Address of Construction: <u>109 MIDDLE STREET PORTLAND, MAINE</u>		
Total Square Footage of Proposed Structure/Area <u>SEE ATTACHED</u>		Square Footage of Lot
Tax Assessor's Chart, Block & Lot Chart#      Block#      Lot# <u>028      N      001</u>	Applicant * <b>must be owner, Lessee or Buyer*</b> Name <u>CITY OF PORTLAND MAINE</u> Address <u>389 CONGRESS STREET</u> City, State & Zip <u>PORTLAND, MAINE 04101</u>	Telephone: <u>207-874-8689</u>
Lessee/DBA (If Applicable)	Owner (if different from Applicant) Name Address City, State & Zip	Cost Of Work: \$ <u>1,320,000.00</u> C of O Fee: \$ _____ Total Fee: \$ <u>FREE WAIVED</u>
Current legal use (i.e. single family) <u>PUBLIC SAFETY BUILDING</u> If vacant, what was the previous use? _____ Proposed Specific use: <u>RENOVATE GYM INTO CRIME LAB - change existing roofline</u> Is property part of a subdivision? _____ If yes, please name _____ Project description: <u>4200 sq ft = 84' x 50'</u>		
Contractor's name: <u>H.E. CALLAHAN CONSTRUCTION</u> <u>Chuck</u>		
Address: <u>2664 TURNER ROAD</u>		
City, State & Zip <u>AVBURY, MAINE 04212</u>		Telephone: <u>784-6927</u>
Who should we contact when the permit is ready: <u>DAVID LEPAGE</u>		Telephone: <u>784-6927</u>
Mailing address: <u>PO BOX 677 AVBURY, MAINE 04212</u>		

Please submit all of the information outlined on the applicable Checklist. Failure to do so will result in the automatic denial of your permit.

In order to be sure the City fully understands the full scope of the project, the Planning and Development Department may request additional information prior to the issuance of a permit. For further information or to download copies of this form and other applications visit the Inspections Division on-line at [www.portlandmaine.gov](http://www.portlandmaine.gov), or stop by the Inspections Division office, room 315 City Hall or call 874-8703.

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

H.E. CALLAHAN CONSTRUCTION

Signature: David Lepage CHIEF ESTIMATOR Date: AUGUST 25, 2008

This is not a permit; you may not commence ANY work until the permit is issue



# General Building Permit Application

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

Location/Address of Construction: <u>Public Safety Building, 109 Middle Street</u>		
Total Square Footage of Proposed Structure/Area <u>96 SQ FT Concrete Pad</u>	Square Footage of Lot <u>21,400</u>	Number of Stories
Tax Assessor's Chart, Block & Lot Chart# <u>28</u> Block# <u>N</u> Lot# <u>1</u>	Applicant *must be owner, Lessee or Buyer* Name <u>City of Portland</u> Address <u>Police Department</u> City, State & Zip <u>109 Middle Street</u>	Telephone: <u>874-8654</u>
Lessee/DBA (If Applicable)  <b>RECEIVED</b> <b>NOV 13 2009</b> <b>Dept. of Building Inspections</b> <b>City of Portland Maine</b>	Owner (if different from Applicant) Name Address City, State & Zip	Cost Of Work: \$ <u>9,000</u> C of O Fee: \$ _____ Total Fee: \$ <u>1,000.00</u>
Current legal use (i.e. single family) <u>Public Safety</u> <sup>RD</sup> Number of Residential Units _____ If vacant, what was the previous use? Proposed Specific use: <u>Emergency Generator - standby unit</u> Is property part of a subdivision? <u>No</u> If yes, please name _____ Project description: <u>Install Standby Emergency generator outside the mechanical room on an exterior concrete pad.</u>		
Contractor's name: <u>ES Boulton Company</u> Address: <u>45 Bradley Drive, W</u> City, State & Zip <u>Westbrook, Me 04092</u> Telephone: <u>207-464-3706</u> Who should we contact when the permit is ready: <u>Russell Charley, P.M.</u> Telephone: <u>207-464-3706</u> Mailing address: <u>45 Bradley Drive</u> <span style="float: right;">XX Call</span>		

Please submit all of the information outlined on the applicable Checklist. Failure to do so will result in the automatic denial of your permit.

In order to be sure the City fully understands the full scope of the project, the Planning and Development Department may request additional information prior to the issuance of a permit. For further information or to download copies of this form and other applications visit the Inspections Division on-line at [www.portlandmaine.gov](http://www.portlandmaine.gov), or stop by the Inspections Division office, room 315 City Hall or call 874-8703.

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

Signature: Russell Charley Date: 11/10/09

This is not a permit; you may not commence ANY work until the permit is issue

# E.S. Boulos Company

## Integrated Power and Building Technologies

### Corporate Office

45 Bradley Drive  
Westbrook, ME 04092  
Tele: (207)464-3706  
Fax: (207)464-1833

### Utility/Industrial Office

70 Commercial Street  
Lewiston, ME 04240  
Tele: (207)784-0906  
Fax: (207)784-9426

## CHANGE ORDER PROPOSAL #1

To: Kathy Alves  
Portland, City of  
City Hall  
389 Congress St  
Portland, ME 04101  
Ph: (207)874-8893 Fax: (207)874-8473

Number: 1  
Date: 11/23/09  
Job: PORT09-127 Public safety generator  
Contract/P.O.:  
Job Site Phone:

**Description:** Upgrade the Generator housing to a Level 1 enclosure to reduce noise.

Reason: Owner Request

Initiated by: Kathy Alves (Portland, City of)

Source: Other

### Scope

We are pleased to offer the following specifications and pricing to make the following changes:

Furnish the Kohler Emergency Standby Generator Set with a level #1 enclosure with an anticipated db level of dba at the 23' measured distance.

This is a reduction of approximately 16dba.

Detail:	Price
ADD LEVEL #1 ENCLOSURE	\$8,800.00
Subtotal:	\$8,800.00
Total:	\$8,800.00

1. We reserve the right to correct this proposal for errors or omissions.
  2. This proposal covers direct costs only and we reserve the right to claim for cumulative impact and consequential costs.
  3. This price is good for acceptance until .
  4. This change order shall be billed concurrent with our base contract.
  5. This proposal is based on the logical implementation of the added work into the schedule in a productive and uninterrupted manner.
  6. Please note, per our subcontract we cannot proceed on this extra work without written notice to proceed.
  7. We request a time extension of To be determined. days to complete this extra work.
  8. This proposal does not include excavation, mechanical, and or concrete work unless otherwise noted.
  9. All work to be completed during the regular work week (Monday thru Friday from 7:00am to 3:30pm), unless otherwise noted.
- Please issue your written notice to proceed by so that this additional work maybe incorporated into the project schedule without delay.

Accepted by:

*Russell Chesley*  
E. S. Boulos Company

*Nov. 23, 2009*

Date

Cc:

Portland, City of

Date

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City of Portland Maine

Portland Public Safety  
Generator Project  
Addendum #2 Items  
September 8, 2009

Based on further investigation, the intent of this project has been modified to locate the new generator directly outside of the existing generator room on the Franklin Street Side of the building, in the vicinity of the existing louvers, approximately 10 feet from the building. As such it shall be furnished with a weather-tight enclosure and 500-gallon skid-mounted fuel tank. Exhaust piping will be routed back to the existing stack located in the existing generator room. Additional work will include the furnishing of a concrete slab sized such that it is 6" longer than the skid on all four sides as well as the removal of the generator room louvers and installing new brick to match the existing brick already on the building. In addition to the items listed above, please modify the specification as follows:

**Specification Section 16000 – General Electrical Requirements**

**2.1.1 General Scope:**

Modify to read:

"The work to be accomplished under these specifications includes providing all labor, materials, equipment, consumable items, supervision, administrative tasks, tests and documentation required to remove the existing generator and furnish and install a new diesel engine generator outside of the existing generator room at the Portland Public Safety Building."

**2.2(D):**

Modify to read:

**"D. Removal of existing intake and exhaust louvers:** Remove existing intake and exhaust louvers and auxiliary equipment. New brick to match existing building brick shall be installed to close in wall where louvers were located. The city of Portland shall approve brick prior to installation."

**2.2(E):**

**"E. Concrete pad:** Contractor shall furnish a new concrete pad to install the generator, skid and tank. Concrete pad shall be a minimum of 8" thick reinforced with #3 gauge steel wire mesh horizontally placed on 6" centers or #6 reinforcing bars on 12" centers. Coordinate location of electrical stub up area with generator furnished."

**Specification Section 16600 – Diesel Generator**

**2.11 Coolant Heater:**

Add the following subsection:

**"E. Furnish 120V circuit wiring in 1" conduit for coolant heaters from existing panel located outside of the electrical room. Conduits shall be EMT where located indoors and PVC schedule 40 installed 24" below-grade where located outdoors. Conductors shall be sized for the size heater provided as per NEC and any new breakers required furnished by this contractor."**

**2.12 Exhaust Silencers and Associated Piping:**

Subsection A, sentence 2 to be modified to read: "The muffler shall be industrial grade."

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Dept. of Building Inspections  
City of Portland Maine



(i) *Historic resources:* The exterior design of proposed or renovated structures located within historic districts shall be subject to the provisions of article IX of this chapter. The exterior design of proposed or renovated structures located adjacent to historic districts or historic resources shall be subject to section 14-526(a)(18).  
(Ord. No. 241-91, 3-11-91)

**Sec. 14-221.1. External effects.**

Every use in the B-3, B-3b and B-3c zones shall be subject to the following requirements:

(a) *Enclosed structure:* The use shall be operated within a completely enclosed structure, except for those uses customarily operated in the open air.

(b) *Noise:* The level of sound, measured by a sound level meter with frequency weighting network (manufactured according to standards prescribed by the American National Standards Institute, Inc.), inherently and recurrently within the B-3 and B-3b zones shall not exceed fifty-five (55) decibels on the A scale between the hours of 9:00 p.m. and 7:00 a.m., and sixty (60) decibels on the A scale between 7:00 a.m. and 9:00 p.m. at the boundaries of any lot nor within publicly accessible pedestrian open space, except for sound from construction activities, sound from traffic on public streets, sound from temporary activities such as festivals, and sound created as a result of, or relating to, an emergency, including sound from emergency warning signal devices. In measuring sound levels under this section, sounds with a continuous duration of less than sixty (60) seconds shall be measured by the maximum reading on a sound level meter set to the A weighted scale and the fast meter response (L maxfast). Sounds with a continuous duration of sixty (60) seconds or more shall be measured on the basis of the energy average sound level over a period of sixty (60) seconds (LEQ<sub>1</sub>).

(c) *Vibration:* Vibration inherently and recurrently generated shall be imperceptible without instruments at lot boundaries.

Mr. Russ Chesley  
E.S. Boulos  
45 Bradley Drive  
Westbrook, Maine 04092

Subject: Portland Public Safety Emergency Generator Set

Dear Russ,

Please find below responses to Swift Current Engineer Mr. Tim Matthews comments on submittal on the Portland Public Safety Emergency Generator set.

Comments:

1. Fuel Tank approved as submitted.
2. Muffler Sound Data – Specification called for Industrial Grade Silencer, we are providing a Critical Grade Silencer. -See Attached Specification on Kohler Silencer Systems
3. Generator Weather Housing – Specification calls for 14 gauge steel Steel construction – See attached specification on Generator Housing.
4. Concrete Pad Requirements – We will provide dimensions and weights of enclosure system and general contractor will be responsible for determining the pad requirements for supporting those items.
5. Communications on existing Onan Automatic Transfer Switch – The only communications requirement between the Onan Transfer Switch and the Kohler Generator Set is the start contacts; these contacts are either normally open or normally closed. Both Onan and Kohler use a two-wire start signal system so this should not be a problem.

The other item you needed was sound data on the weather enclosure being provided on generator set system. The factory says that this unit has a dba rating of 97 dba at 3 feet with 94 dba at 23 feet and you when you double the distance (46 feet) from enclosure you will get a 6 dba (88 dba) reduction. All of these dba rating are based on a 23 foot clear area on all four sides and if don't have that clear area your dba sound levels will change depending on background material.

## **Electrical Power Systems**

If you have any questions reference the above statements or need further technical information on this project please contact me at Power Products.

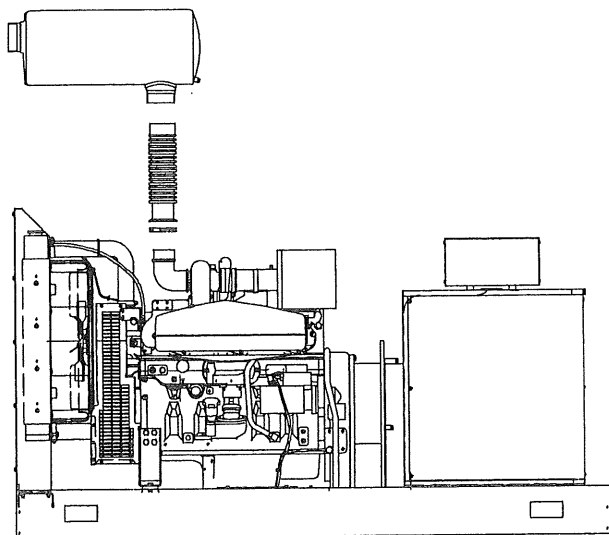
Sincerely,

A handwritten signature in black ink, appearing to read 'Dave Coughlan', written over the word 'Sincerely,'.

Dave Coughlan  
Power Products Inc.  
Generator Sales  
207-797-5188 (office)  
207-797-5953 (fax)  
207-233-7451 (cell phone)



Kohler Co. offers silencers rated for hospital, critical, residential, and industrial applications and stainless steel flexible exhaust connectors for unboxed generator sets. The accessories described in this spec sheet apply to open units unless otherwise stated. These silencers withstand exhaust flow pressure and temperature without creating excessive engine backpressure.



Silencer Type	Noise Reduction dB(A)	Ambient Noise Level	Silencing Requirement
Hospital	32-42	Low	Very High
Critical	25-35	Low	High
Residential	18-25	Low-Medium	Medium
Industrial	12-18	Medium-High	Low-Medium

**Silencer and Exhaust System Selection**

Select the silencer based on the required degree of exhaust noise reduction using the four silencer ratings in the table above. In addition, select the silencer inlet/outlet type using the legend descriptions.

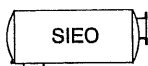
**Note:** Some generator set models may not offer all exhaust system combinations.

Use the illustrations on the following pages to select the available silencer type and exhaust system configuration best suited for your application. Refer to your authorized distributor/dealer for silencer and component kit numbers and for silencer dimensions.

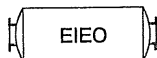
**Legend**

Use the information below for identifying the exhaust system components shown in the illustrations on the following pages.

Side Inlet End Outlet (SIEO)



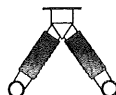
End Inlet End Outlet (EIEO)



Flex Exhaust



Flex Exhaust (wye)



**Backpressure Considerations**

Consult the generator set spec sheet to determine the maximum allowable exhaust backpressure. Add the backpressure produced by the silencer and exhaust piping together to determine the total exhaust system backpressure. Contact an authorized distributor/dealer to calculate backpressure in the exhaust piping. Do not exceed the maximum allowable backpressure.

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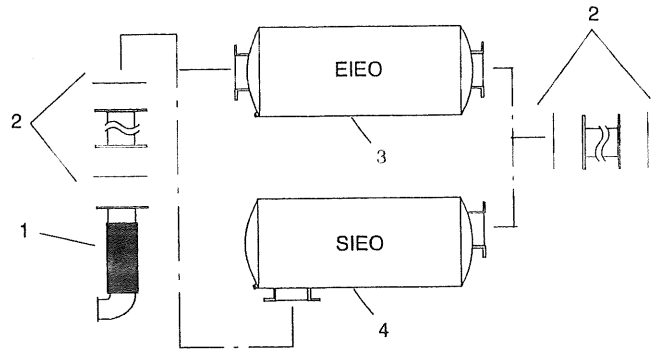
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1600REOZM	12
1600REOZMB	12
1750REOZDC	11
1750REOZMB	12
1820REOZM	12
2000REOZDB	9
2000REOZDC	11
2000REOZM	12
2000REOZMB	12
2250REOZDC	11
2500REOZDB	11
2800REOZDB	11
3000REOZD	11
3250REOZD	11

# Diesel

## 230-300REOZDB

230-275REOZDB			
Item	Exhaust System Kits	Qty. In Kit	Size, In/Out
1	Flex Exhaust, 6" or 6" *	1	—
2	Weld Flange, 6" or 8" †	2	—
3	Hospital Silencer EIEO	1	8"
4	Hospital Silencer SIEO	1	8"
3	Critical Silencer EIEO	1	6"
4	Critical Silencer SIEO	1	6"
3	Residential Silencer EIEO	1	6"
4	Residential Silencer SIEO	1	6"
3	Industrial Silencer EIEO	1	6"
4	Industrial Silencer SIEO	1	6"
300REOZDB			
Item	Exhaust System Kits	Qty. In Kit	Size, In/Out
1	Flex Exhaust, 8" *	1	—
2	Weld Flange, 8" †	2	—
3	Hospital Silencer EIEO	1	8"
4	Hospital Silencer SIEO	1	8"
3	Critical Silencer EIEO	1	8"
4	Critical Silencer SIEO	1	8"
3	Residential Silencer EIEO	1	8"
4	Residential Silencer SIEO	1	8"
3	Industrial Silencer EIEO	1	8"
4	Industrial Silencer SIEO	1	8"

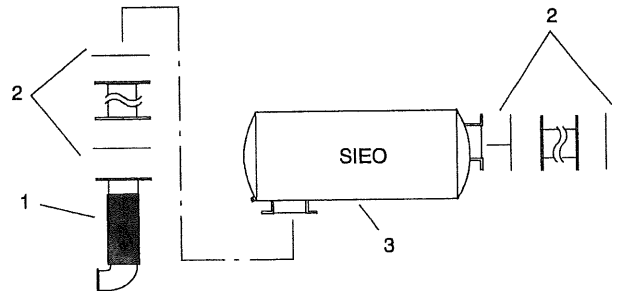
\* Kit includes exhaust clamp.  
 † One kit includes (2) exhaust flanges, (2) gaskets, and the mounting hardware. See Weld Flange Kits for additional data.



## 230-450REOZDD, 350/400REOZDC, and 450REOZDB

Item	Exhaust System Kits	Qty. In Kit	Size, In/Out
1	Flex Exhaust, 8" *	1	—
2	Weld Flange, 8" †	2	—
3	Hospital Silencer SIEO	1	8"
3	Critical Silencer SIEO	1	8"

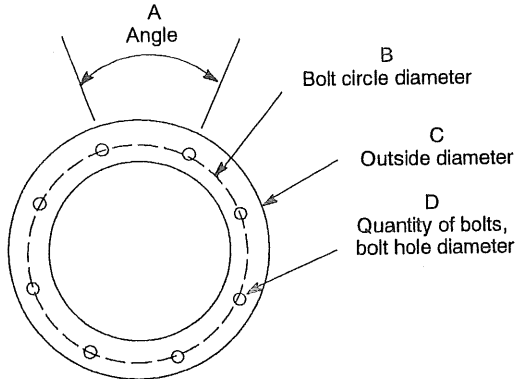
\* Kit includes exhaust clamp and kits for 400REOZDC/450REOZDB include an insulation blanket.  
 † One kit includes (2) exhaust flanges, (2) gaskets, and the mounting hardware. See Weld Flange Kits for additional data.



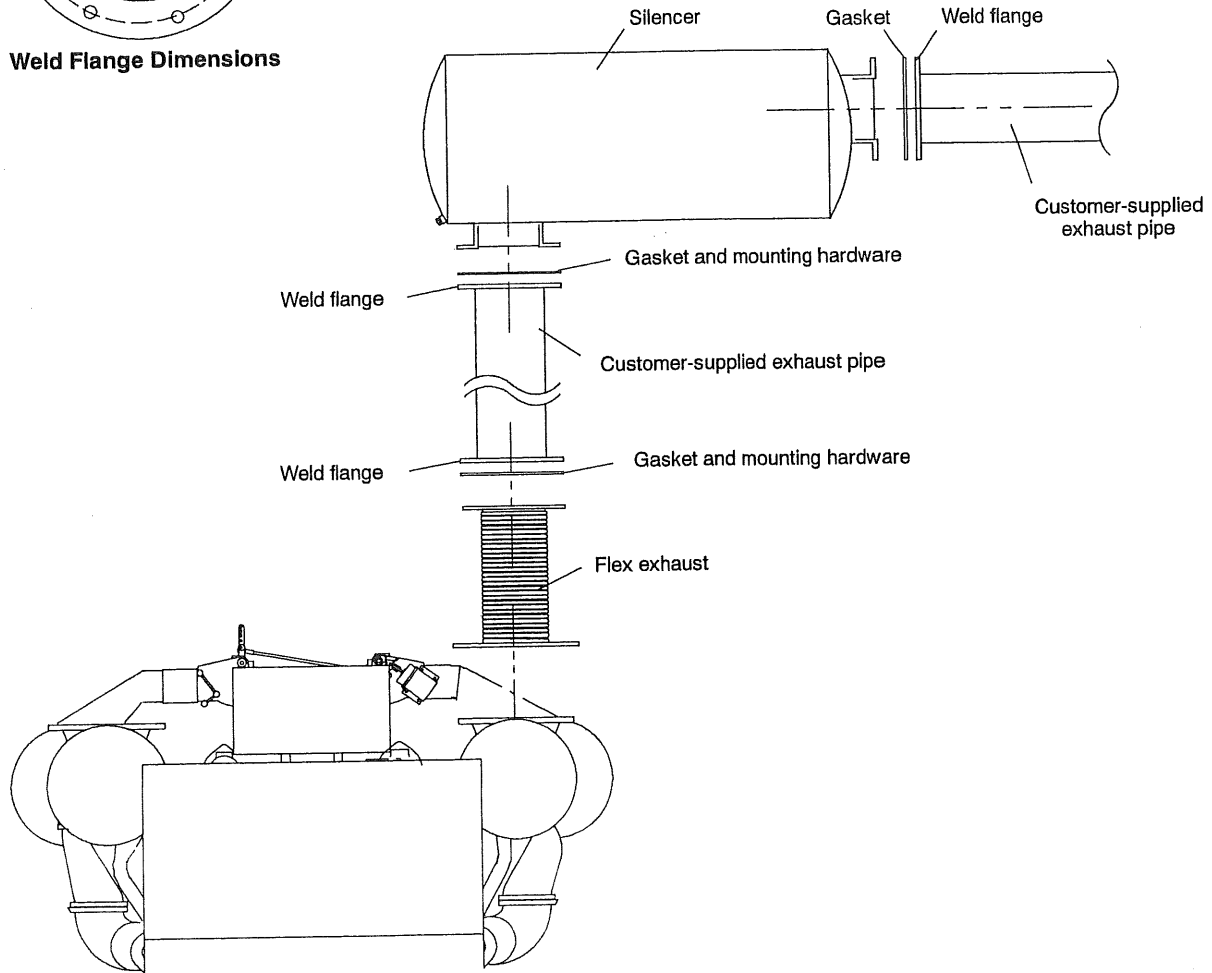
## Weld Flange Kits

Use the weld flange kit to connect the exhaust silencer to customer-supplied exhaust pipe. One weld flange kit includes two exhaust flanges, two gaskets, and the mounting hardware.

ANSI Class 150 Flange Dimensions				
Nominal Pipe Size, in.	A deg.	B mm (in.)	C mm (in.)	D Qty., mm (in.)
5	45	215.90 (8.50)	254.0 (10.0)	8,22.23 (0.88)
6	45	241.30 (9.50)	279.4 (11.0)	8,22.23 (0.88)
8	45	298.45 (11.75)	342.9 (13.5)	8,22.23 (0.88)
10	30	361.95 (14.25)	406.4 (16.0)	12,25.40 (1.00)
12	30	431.80 (17.00)	482.6 (19.0)	12,25.40 (1.00)
14	30	476.25 (18.75)	533.4 (21.0)	12,28.58 (1.13)
16	22.5	539.75 (21.25)	596.9 (23.5)	16,28.58 (1.13)
18	22.5	577.85 (22.75)	635.0 (25.0)	16,31.75 (1.25)
20	18	635.00 (25.00)	698.5 (27.5)	20,31.75 (1.25)



**Weld Flange Dimensions**



KOHLER CO., Kohler, Wisconsin 53044 USA  
Phone 920-565-3381, Fax 920-459-1646  
For the nearest sales and service outlet in the  
US and Canada, phone 1-800-544-2444  
KohlerPower.com

Kohler Power Systems  
Asia Pacific Headquarters  
7 Jurong Pier Road  
Singapore 619159  
Phone (65) 6264-6422, Fax (65) 6264-6455

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**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 set distributor for availability.

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# Tramont Corporation

## Sales

3701 N. Humboldt Boulevard Phone: 414-967-8800  
Milwaukee, WI USA 53212 Fax: 414-967-8811

e-mail: [sales@tramont.com](mailto:sales@tramont.com)  
Internet: [www.tramont.com](http://www.tramont.com)

**Quote number: BK9-90032**

Date: 11/6/09

Contact: Dave Coughlan  
Company: **Power Products Systems**  
Subject: 14 gauge housing request

We are pleased to provide the following proposal:

Package designed for **400REOZDD 40C, Genset drawing ADV-6947**

Tramont enclosure number **1400-7768** includes

Weather protective enclosure, steel construction, designed to mount to genset base rail

**Internal** silencer, flex, elbow and rain-cap included

Enclosure is powder coated **Kohler Cream**

Extend oil and coolant drains to exterior with valves

Duct radiator (customer to provide duct flange on genset)

**660** gallon double wall sub base fuel tank (will NOT accept spring isolators)

Low fuel level alarm, leak detection alarm, normal vent, emergency vents, removable end channel & lockable fill cap

Pick up of genset from factory included

Steel surcharge included – price valid through 12/31/09

### **ADDITIONAL OPTIONS INCLUDED:**

**None**

### **CUSTOMER EXPECTATIONS:**

Provide genset with duct adaptor, fuel lines, out-bound freight.

### **EXCEPTION/CLARIFICATION:**

Enclosure body is manufactured of 14 gauge, enclosure louver bladders are manufactured of 18 ga

Enclosure includes extension box for extending breaker (see drawing)

Tank capacity is 660 gallons.

**Terms and Conditions.** All items freight not allowed. Shipping point Milwaukee, WI USA. All prod net 30 days and subject to credit approval. Delivery interval negotiated upon receipt of order with approved drawings. Items in quotation subject to buyer's review and approval.

**From:** Kathy Alves  
**To:** David Margolis-Pineo, Marge Schmuckal, Barbara Barhydt  
**Date:** 11/20/2009 5:49:44 AM  
**Subject:** Public Safety Generator

Per our conversation on 11/19/09 the City's Trades Division will install additional sound protection around the proposed generator in such a way that is adequate with the planning boards long term goal of Franklin Arterial. Russ, were you able to obtain any further info on the other enclosure? Please forward any of the info to all included on this e-mail. Thanks

**CC:** rchesley@esboulos.com





# Application for Exemption from Site Plan Review

Portland, Maine

Department of Planning and Urban Development, Planning Division and Planning Board

PROJECT NAME: Portland Public Safety

PROJECT ADDRESS: 109 Middle Street, Portland Me

PROJECT DESCRIPTION: (Please Attach Sketch/Plan of Proposal/Development)  
Exterior Concrete pad for emergency generator.

CHART/BLOCK/LOT: 28/N/1

**CONTACT INFORMATION:**

OWNER/APPLICANT

Name: City of Portland

Address: 389 Congress St.  
Portland, Me

Zip Code: 04101-3509

Work #: 207-874-8893

Cell #: 207-233-8523

Fax #: 874-8473

Home #: \_\_\_\_\_

E-mail: Kra@portlandmaine.gov

CONSULTANT/AGENT

Name: Russell Chesley

Address: E.S. Boulos

Zip Code: \_\_\_\_\_

Work #: 464-3706

Cell #: \_\_\_\_\_

Fax #: \_\_\_\_\_

Home #: \_\_\_\_\_

E-mail: \_\_\_\_\_

**RECEIVED**

NOV 24 2009

Dept. of Building Inspections  
City of Portland Maine

**Criteria for Exemptions:**

(See Section 14-523 (4) on page 2 of this application)

- a) Is the proposal within existing structures?
- b) Are there any new buildings, additions, or demolitions?
- c) Is the footprint increase less than 500 sq. ft.?
- d) Are there any new curb cuts, driveways or parking areas?
- e) Are the curbs and sidewalks in sound condition?
- f) Do the curbs and sidewalks comply with ADA?
- g) Is there any additional parking?
- h) Is there an increase in traffic?
- i) Are there any known stormwater problems?
- j) Does sufficient property screening exist?
- k) Are there adequate utilities?

Applicant's Assessment  
Y(yes), N(no), N/A

Planning Division  
Use Only

Applicant's Assessment	Planning Division Use Only
N/A	N/A
EXTERIOR Concrete pad	outside generator
Y	yes
N	no
N/A	yes
N/A	yes
N/A	no
N/A	no
N	no
N	yes - with conditions
N/A	yes

**Planning Division Use Only**

Exemption Granted  <sup>with conditions</sup> Partial Exemption  Exemption Denied

- 1) The level #1 enclosure shall be installed with the generator to attenuate the noise levels.
  - 2) Bushes or trees removed for installation of the generator shall be replaced.
  - 3) Routine tests of the generator shall be conducted on weekdays (mon-fri) during typical work hours between 9am and 5pm.
- Planner's Signature: Barbara Bushnell Date: Nov. 20, 2009

**Planning Barbara Barhydt**

November 20, 2009

Kathy Alves, City Trades Division, has provided the following information regarding the generator:

- 1) The muffler silencer is being installed and it is being upgraded from Industrial Grade Silencer to Critical Grade Silencer.
- 2) The weekly testing of the current generator happens 1 time per week on Wednesday between 9 a.m. and 9:20 a.m. The new generator will be tested on the same schedule.
- 3) The Level #1 enclosure will reduce the noise to approximately 78 dba at 23 feet from the radiator.

The site plan exemption is granted with the following conditions of approval:

- 1) The Level #1 enclosure shall be installed with the generator to attenuate the noise levels.
- 2) Bushes or trees removed for installation of the generator shall be replaced.
- 3) Routine test of the generator shall be conducted on weekdays (Mon. through Friday) between 9 a.m. and 5 p.m.

**From:** "Russel Chesley" <rchesley@esboulos.com>  
**To:** "Kathy Alves" <KRA@portlandmaine.gov>  
**Date:** Friday, November 20, 2009 11:04:42 AM  
**Subject:** RE: Public Safety Generator

Kathy,

To reduce the dba level:

Level #1 enclosure approx. 78 dba at 23 feet from the radiator: the cost would be \$ 8,800.00 increase. (-16dba)

Level #2 enclosure approx. 68-72 dba at 23 feet from the radiator: the cost would be \$27,800. Increase. (-20dba)

This unit can be converted to these enclosures.

Russ

-----Original Message-----

From: Kathy Alves [mailto:KRA@portlandmaine.gov]  
Sent: Friday, November 20, 2009 10:40 AM  
To: rchesley@esboulos.com  
Subject: Fw: Public Safety Generator

I think we're making headway. If you can get that info to her regarding the enclosure that would be great. I'd like to get the permit before they break for T-Giving.



# General Building Permit Application

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

Location/Address of Construction: <u>Public Safety Building, 109 Middle Street</u>		
Total Square Footage of Proposed Structure/Area <u>96 SQ FT Concrete Pad</u>	Square Footage of Lot <u>21,400</u>	Number of Stories
Tax Assessor's Chart, Block & Lot Chart# <u>28</u> Block# <u>N</u> Lot# <u>1</u>	Applicant *must be owner, Lessee or Buyer* Name <u>City of Portland</u> Address <u>Police Department</u> City, State & Zip <u>109 Middle Street</u>	Telephone: <u>874-8654</u>
Lessee/DBA (If Applicable)	Owner (if different from Applicant) Name Address City, State & Zip	Cost Of Work: \$ <u>9,000</u> C of O Fee: \$ Total Fee: \$ <u>1,000.00</u>
Current legal use (i.e. single family) <u>Public Safety</u> <sup>RD</sup> Number of Residential Units _____	If vacant, what was the previous use? _____	
Proposed Specific use: <u>Emergency Generator - standby unit</u>	Is property part of a subdivision? <u>No</u> If yes, please name _____	
Project description: <u>Install Standby Emergency generator outside the mechanical room on an exterior concrete pad.</u>		
Contractor's name: <u>ES Boulos Company</u>		
Address: <u>45 Bradley Drive</u>		
City, State & Zip: <u>Westbrook, Me 04092</u>		Telephone: <u>207-464-3706</u>
Who should we contact when the permit is ready: <u>Russell Cheley, P.M.</u>		Telephone: <u>207-464-3706</u>
Mailing address: <u>45 Bradley Drive</u> <span style="float: right;">XX Call</span>		

Please submit all of the information outlined on the applicable Checklist. Failure to do so will result in the automatic denial of your permit.

In order to be sure the City fully understands the full scope of the project, the Planning and Development Department may request additional information prior to the issuance of a permit. For further information or to download copies of this form and other applications visit the Inspections Division on-line at [www.portlandmaine.gov](http://www.portlandmaine.gov), or stop by the Inspections Division office, room 315 City Hall or call 874-8703.

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

Signature: Russell Cheley Date: 11/10/09

This is not a permit; you may not commence ANY work until the permit is issue

**From:** Kathy Alves  
**To:** Barbara Barhydt  
**Date:** Wednesday, November 18, 2009 3:27:54 PM  
**Subject:** Re: Public Safety Generator test

The muffler silencer is being installed, as stated it is being upgraded from and "Industrial Grade Silencer" to a "Critical Grade Silencer".

Do you have the data sheet provided by Power Products? If not i'll be at City Hall tomorrow around 10:30, will you be around?

Kathy Alves  
Director of Operations, Trades  
389 Congress St  
Portland Me, 04101  
Office- 207-874-8893  
Fax- 207-874-8473  
[kra@portlandmaine.gov](mailto:kra@portlandmaine.gov)

>>> Barbara Barhydt 11/18/2009 1:03:46 PM >>>

Hi Kathy:

We talked about this at our development review meeting. The noise levels for this are extremely high compared to other facilities. David Margolis-Pineo noted that there are specifications for a muffler on one of the sheets, but it is unclear if a muffler is proposed. The most that can be done to minimize noise and provide screening is important.

Thanks.

Barbara

>>> Kathy Alves Wednesday, November 18, 2009 12:35 PM >>>

This currently happens 1 time per week on Wednesdays between 9:00am and 9:20am. The new generator will be tested monthly on Wednesdays between 9:00am and 9:20 am.

I have a call into both the Manufacturer and the contractor to ask about the availability of an enclosure that may help with the noise reduction.

If you have further questions please contact me @ 233-8523. Thanks

Kathy Alves  
Director of Operations, Trades  
389 Congress St  
Portland Me, 04101  
Office- 207-874-8893  
Fax- 207-874-8473  
[kra@portlandmaine.gov](mailto:kra@portlandmaine.gov)



**From:** Kathy Alves  
**To:** David Margolis-Pineo, Marge Schmuckal, Barbara Barhydt  
**Date:** Friday, November 20, 2009 5:49:44 AM  
**Subject:** Public Safety Generator

Per our conversation on 11/19/09 the City's Trades Division will install additional sound protection around the proposed generator in such a way that is adequate with the planning boards long term goal of Franklin Arterial. Russ, were you able to obtain any further info on the other enclosure? Please forward any of the info to all included on this e-mail. Thanks

**CC:** [rchesley@esboulos.com](mailto:rchesley@esboulos.com)

**From:** Kathy Alves  
**To:** Barbara Barhydt  
**Date:** Friday, November 20, 2009 10:07:48 AM  
**Subject:** Re: Public Safety Generator

Barbara I don't have time to send this out for design and calculations at this time. I'll work with you once the equipment is in place and we know where we need to be. In the mean time we're trying to get the info on the closure silencer along with another up grade to the muffler. Can you give me an idea of when this permit maybe issued. Lisa Perrota is pressuring me to get going on this as the funding goes away in 40 days. (150,000. 00)

-----Original Message-----

From: Barbara Barhydt  
To: David Margolis-Pineo <DMP@portlandmaine.gov>  
Kathy Alves <KRA@portlandmaine.gov>  
Marge Schmuckal <MES@portlandmaine.gov>  
CC: rchesley@esboulos.com  
Creation Date: 11/20 9:57 am  
Subject: Re: Public Safety Generator

Hi:

I am particularly interested in the estimated reduction in decibels from the generator. Thank you.

Barbara

>>> Kathy Alves Friday, November 20, 2009 5:49 AM >>>

Per our conversation on 11/19/09 the City's Trades Division will install additional sound protection around the proposed generator in such a way that is adequate with the planning boards long term goal of Franklin Arterial. Russ, were you able to obtain any further info on the other enclosure? Please forward any of the info to all included on this e-mail. Thanks

**From:** Kathy Alves  
**To:** Barbara Barhydt  
**Date:** Wednesday, November 18, 2009 12:35:36 PM  
**Subject:** Re: Public Safety Generator test

This currently happens 1 time per week on Wednesdays between 9:00am and 9:20am. The new generator will be tested monthly on Wednesdays between 9:00am and 9:20 am. I have a call into both the Manufacturer and the contractor to ask about the availability of an enclosure that may help with the noise reduction. If you have further questions please contact me @ 233-8523. Thanks

Kathy Alves  
Director of Operations, Trades  
389 Congress St  
Portland Me, 04101  
Office- 207-874-8893  
Fax- 207-874-8473  
kra@portlandmaine.gov

**CC:** Marge Schmuckal





# General Building Permit Application

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

Location/Address of Construction: <u>Public Safety Building, 109 Middle Street</u>			Total Square Footage of Proposed Structure/Area <u>96 SQ FT Concrete Pad</u>		Square Footage of Lot <u>21,400</u>	Number of Stories
Tax Assessor's Chart, Block & Lot Chart# <u>28</u>	Block# <u>N</u>	Lot# <u>1</u>	Applicant *must be owner, Lessee or Buyer* Name <u>City of Portland</u> Address <u>Police Department</u> City, State & Zip <u>109 Middle Street</u>		Telephone: <u>874-8654</u>	
<b>RECEIVED</b>  <b>NOV 13 2009</b>  <b>Dept. of Building Inspections</b> <b>City of Portland Maine</b>			Owner (if different from Applicant) Name Address City, State & Zip		Cost Of Work: \$ <u>9,000</u> C of O Fee: \$ _____ Total Fee: \$ <u>1,000.00</u>	
			Current legal use (i.e. single family) <u>Public Safety</u> <sup>RD</sup> Number of Residential Units _____ If vacant, what was the previous use? _____ Proposed Specific use: <u>Emergency Generator - standby unit</u> Is property part of a subdivision? <u>No</u> If yes, please name _____ Project description: <u>Install Standby Emergency generator outside the mechanical room on an exterior concrete pad.</u>		Contractor's name: <u>ES Boulas Company</u> Address: <u>45 Bradley Drive, W</u> City, State & Zip <u>Westbrook, Me 04092</u> Telephone: <u>207-464-3706</u> Who should we contact when the permit is ready: <u>Russell Chelley, P.M.</u> Telephone: <u>207-464-3706</u> Mailing address: <u>45 Bradley Drive</u> <span style="float: right;">xx Call</span>	

Please submit all of the information outlined on the applicable Checklist. Failure to do so will result in the automatic denial of your permit.

In order to be sure the City fully understands the full scope of the project, the Planning and Development Department may request additional information prior to the issuance of a permit. For further information or to download copies of this form and other applications visit the Inspections Division on-line at [www.portlandmaine.gov](http://www.portlandmaine.gov), or stop by the Inspections Division office, room 315 City Hall or call 874-8703.

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Signature: Russell Chelley Date: 11/10/09

This is not a permit; you may not commence ANY work until the permit is issue

(i) *Historic resources:* The exterior design of proposed or renovated structures located within historic districts shall be subject to the provisions of article IX of this chapter. The exterior design of proposed or renovated structures located adjacent to historic districts or historic resources shall be subject to section 14-526(a)(18).  
(Ord. No. 241-91, 3-11-91)

**Sec. 14-221.1. External effects.**

Every use in the B-3, B-3b and B-3c zones shall be subject to the following requirements:

(a) *Enclosed structure:* The use shall be operated within a completely enclosed structure, except for those uses customarily operated in the open air.

(b) *Noise:* The level of sound, measured by a sound level meter with frequency weighting network (manufactured according to standards prescribed by the American National Standards Institute, Inc.), inherently and recurrently within the B-3 and B-3b zones shall not exceed fifty-five (55) decibels on the A scale between the hours of 9:00 p.m. and 7:00 a.m., and ~~sixty (60) decibels on the A scale between 7:00 a.m. and 9:00 p.m.~~ at the boundaries of any lot nor within publicly accessible pedestrian open space, except for sound from construction activities, sound from traffic on public streets, sound from temporary activities such as festivals, and sound created as a result of, or relating to, an emergency, including sound from emergency warning signal devices. In measuring sound levels under this section, sounds with a continuous duration of less than sixty (60) seconds shall be measured by the maximum reading on a sound level meter set to the A weighted scale and the fast meter response (L maxfast). Sounds with a continuous duration of sixty (60) seconds or more shall be measured on the basis of the energy average sound level over a period of sixty (60) seconds (LEQ<sub>1</sub>).

(c) *Vibration:* Vibration inherently and recurrently generated shall be imperceptible without instruments at lot boundaries.

If you have any questions reference the above statements or need further technical information on this project please contact me at Power Products.

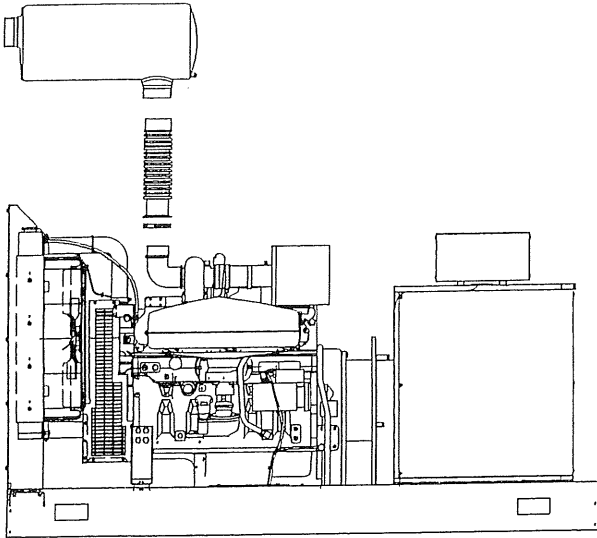
Sincerely,



Dave Coughlan  
Power Products Inc.  
Generator Sales  
207-797-5188 (office)  
207-797-5953 (fax)  
207-233-7451 (cell phone)



Kohler Co. offers silencers rated for hospital, critical, residential, and industrial applications and stainless steel flexible exhaust connectors for unhoused generator sets. The accessories described in this spec sheet apply to open units unless otherwise stated. These silencers withstand exhaust flow pressure and temperature without creating excessive engine backpressure.



Silencer Type	Noise Reduction dB(A)	Ambient Noise Level	Silencing Requirement
Hospital	32-42	Low	Very High
Critical	25-35	Low	High
Residential	18-25	Low-Medium	Medium
Industrial	12-18	Medium-High	Low-Medium

**Silencer and Exhaust System Selection**

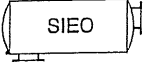
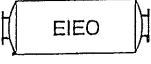
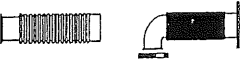

Select the silencer based on the required degree of exhaust noise reduction using the four silencer ratings in the table above. In addition, select the silencer inlet/outlet type using the legend descriptions.

**Note:** Some generator set models may not offer all exhaust system combinations.

Use the illustrations on the following pages to select the available silencer type and exhaust system configuration best suited for your application. Refer to your authorized distributor/dealer for silencer and component kit numbers and for silencer dimensions.

**Legend**

Use the information below for identifying the exhaust system components shown in the illustrations on the following pages.

- Side Inlet End Outlet (SIEO) 
- End Inlet End Outlet (EIEO) 
- Flex Exhaust 
- Flex Exhaust (wye) 

**Backpressure Considerations**

Consult the generator set spec sheet to determine the maximum allowable exhaust backpressure. Add the backpressure produced by the silencer and exhaust piping together to determine the total exhaust system backpressure. Contact an authorized distributor/dealer to calculate backpressure in the exhaust piping. Do not exceed the maximum allowable backpressure.



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100REOZJB	6
100REOZJC	5
100REOZJD	5
125REOZJB	6
125REOZJD	6
135REOZJC	6
150REOZJB	6
150REOZJC	6
150REOZJD	6
180REOZJB	6
180REOZJC	6
180REOZJD	6
200REOZJB	6
200REOZJC	6
200REOZJD	6
230REOZDB	7
230REOZDD	7
230REOZJB	6
230REOZJD	6
230REOZJE	6
250REOZDB	7
250REOZDD	7
250REOZJC	6
250REOZJD	6
250REOZJE	6
275REOZDB	7
275REOZDD	7
275REOZJD	6
275REOZJE	6
275REOZV	8
300REOZDB	7
300REOZDD	7
300REOZV	8
350REOZDC	7
350REOZDD	7
350REOZVC	8

Model	Page
<b>Diesel, continued</b>	
400REOZDC	7
400REOZDD	7
400REOZVC	8
450REOZDB	7
450REOZDD	7
450REOZVB	8
500REOZVB	8
550REOZV	8
600REOZM	12
600REOZMB	12
600REOZV	8
650REOZDB	9
650REOZDC	10
700REOZDD	10
750REOZDB	9
750REOZDC	10
750REOZM	12
750REOZMB	12
800REOZDB	9
800REOZDD	10
800REOZM	12
800REOZMB	12
900REOZDB	9
900REOZDC	10
900REOZDD	10
900REOZM	12
900REOZMB	12
1000REOZDB	9
1000REOZDC	10
1000REOZDD	10
1000REOZM	12
1000REOZMB	12
1250REOZDC	11
1250REOZM	12
1250REOZMB	12
1500REOZDB	9
1500REOZDC	11
1600REOZM	12
1600REOZMB	12
1750REOZDC	11
1750REOZMB	12
1820REOZM	12
2000REOZDB	9
2000REOZDC	11
2000REOZM	12
2000REOZMB	12
2250REOZDC	11
2500REOZDB	11
2800REOZDB	11
3000REOZDC	11
3250REOZD	11

# Diesel

## 230-300REOZDB

### 230-275REOZDB

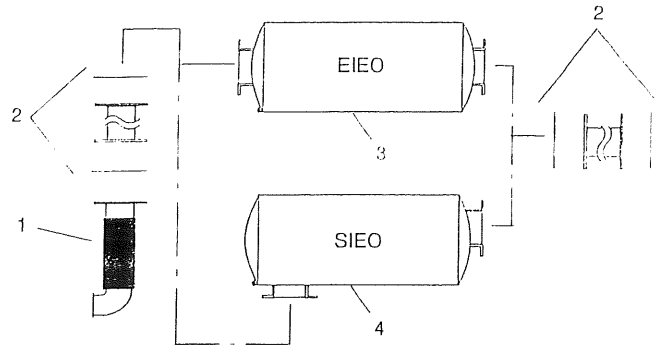
Item	Exhaust System Kits	Qty. In Kit	Size, In/Out
1	Flex Exhaust, 6" or 6" *	1	—
2	Weld Flange, 6" or 8" †	2	—
3	Hospital Silencer EIEO	1	6"
4	Hospital Silencer SIEO	1	8"
3	Critical Silencer EIEO	1	6"
4	Critical Silencer SIEO	1	6"
3	Residential Silencer EIEO	1	6"
4	Residential Silencer SIEO	1	6"
3	Industrial Silencer EIEO	1	6"
4	Industrial Silencer SIEO	1	6"

### 300REOZDB

Item	Exhaust System Kits	Qty. In Kit	Size, In/Out
1	Flex Exhaust, 8" *	1	—
2	Weld Flange, 8" †	2	—
3	Hospital Silencer EIEO	1	8"
4	Hospital Silencer SIEO	1	8"
3	Critical Silencer EIEO	1	8"
4	Critical Silencer SIEO	1	8"
3	Residential Silencer EIEO	1	8"
4	Residential Silencer SIEO	1	8"
3	Industrial Silencer EIEO	1	8"
4	Industrial Silencer SIEO	1	8"

\* Kit includes exhaust clamp.

† One kit includes (2) exhaust flanges, (2) gaskets, and the mounting hardware. See Weld Flange Kits for additional data.

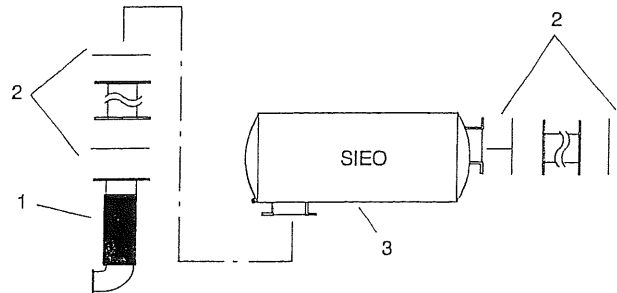


## 230-450REOZDD, 350/400REOZDC, and 450REOZDB

Item	Exhaust System Kits	Qty. In Kit	Size, In/Out
1	Flex Exhaust, 8" *	1	—
2	Weld Flange, 8" †	2	—
3	Hospital Silencer SIEO	1	8"
3	Critical Silencer SIEO	1	8"

\* Kit includes exhaust clamp and kits for 400REOZDC/450REOZDB include an insulation blanket.

† One kit includes (2) exhaust flanges, (2) gaskets, and the mounting hardware. See Weld Flange Kits for additional data.



COUNTY  
JAIL

SOUTHBOUND

ST. REE

94

LANE

60048  
Public Safety  
CITY



FRANKLIN

6' x 16'  
GEU  
PAD

C  
95

GARDEN

5062

49.58

45.25

105

873

A

192  
189  
187  
185  
183

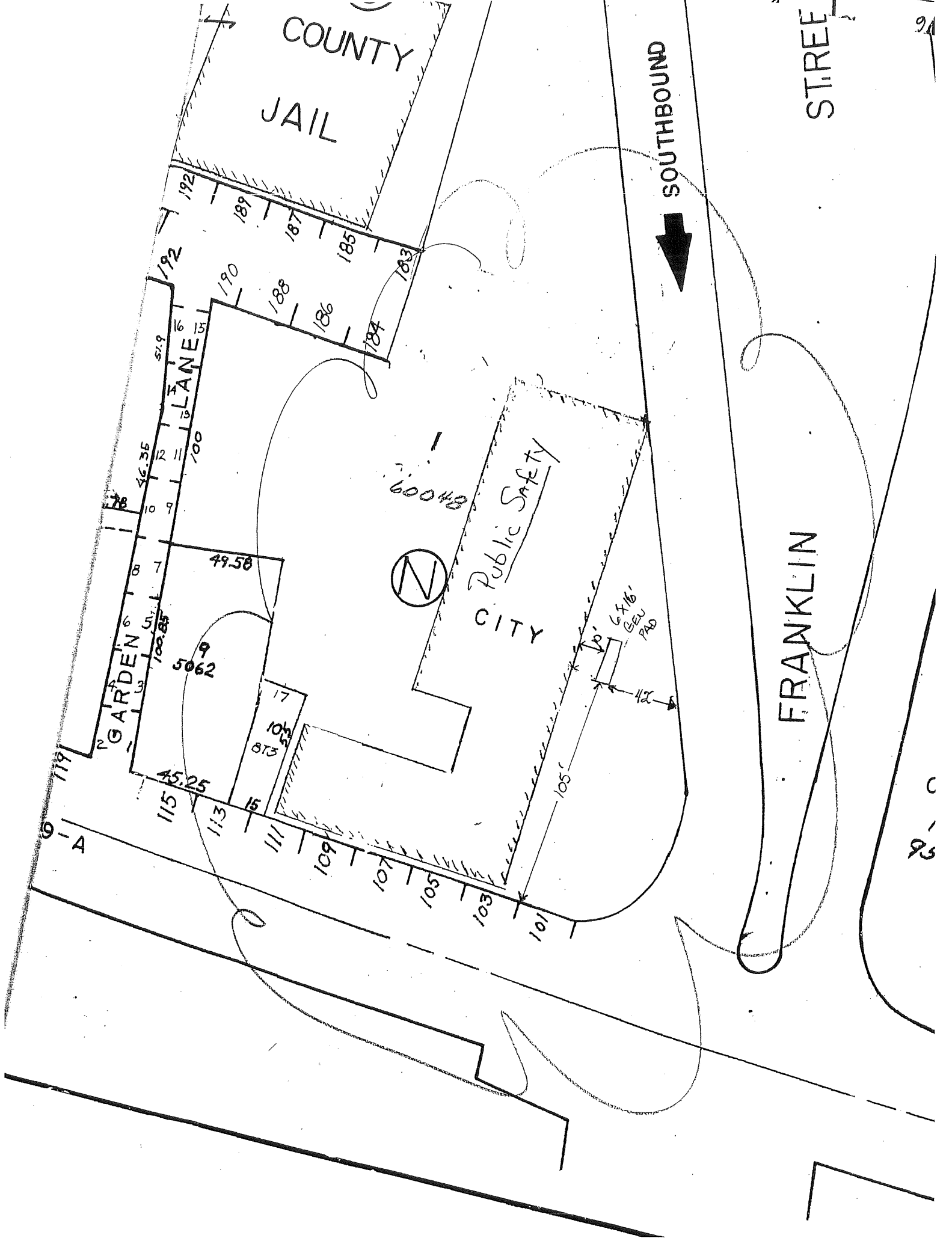
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116  
118

115  
113  
111  
109  
107  
105  
103  
101

105'

42'



# PowerProducts<sup>®</sup>

Division of New England Detroit Diesel-Allison, Inc.

Power Products  
81 Bay State Road  
Wakefield, MA 01880  
Tel 781-246-1811  
Fax 781-246-5321

Branch  
432 Warren Avenue  
Portland, ME 04103  
Tel 207-797-5950  
Fax 207-797-5953

Mr. Russ Chesley  
E.S. Doulos  
45 Bradley Drive  
Westbrook, Maine 04092

Subject: Portland Public Safety Emergency Generator Set

Dear Russ,

Please find below responses to Swift Current Engineer Mr. Tim Matthews comments on submittal on the Portland Public Safety Emergency Generator set.

#### Comments:

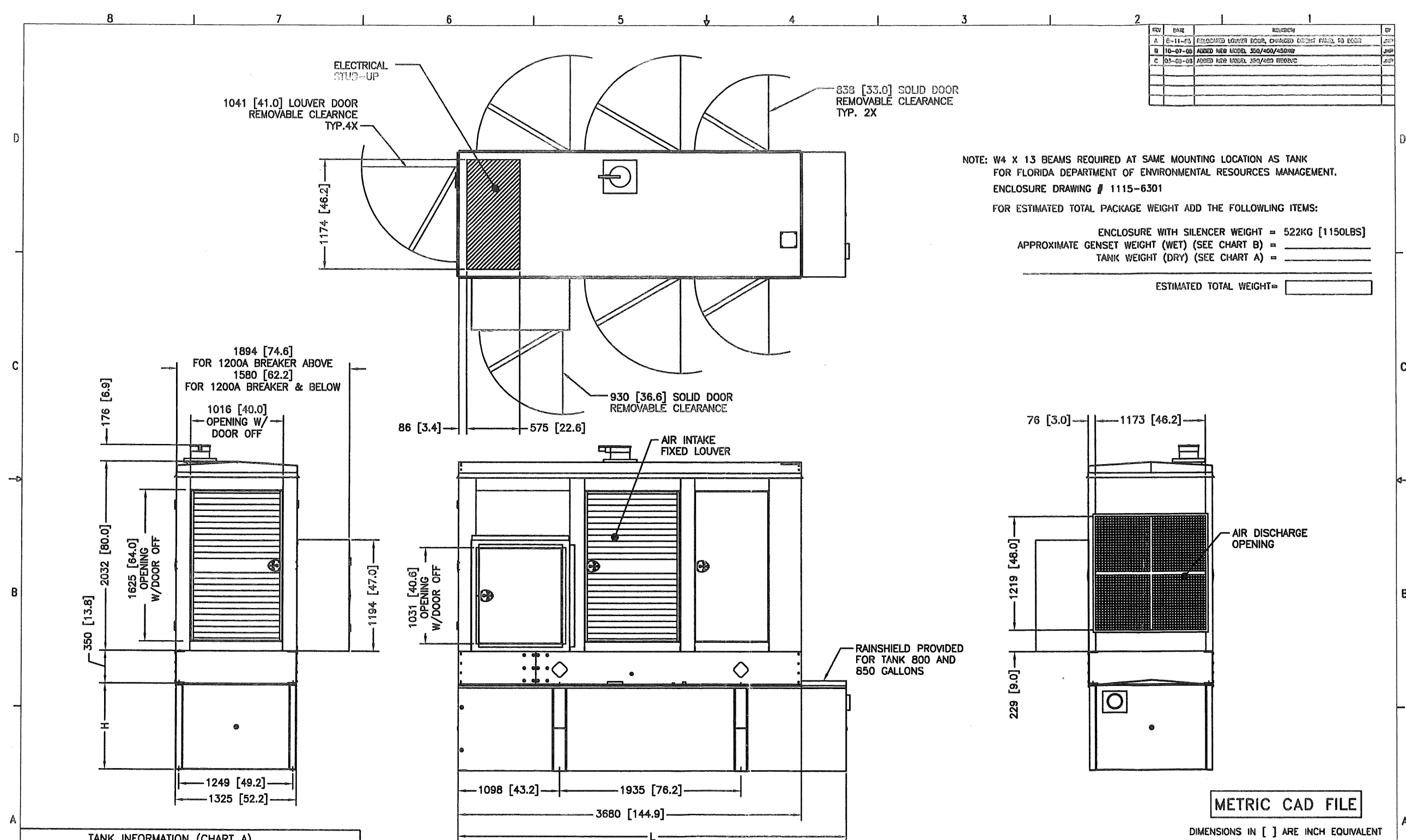
1. Fuel Tank approved as submitted.
2. Muffler Sound Data – Specification called for Industrial Grade Silencer, we are providing a Critical Grade Silencer. -See Attached Specification on Kohler Silencer Systems
3. Generator Weather Housing – Specification calls for 14 gauge steel Steel construction – See attached specification on Generator Housing.
4. Concrete Pad Requirements – We will provide dimensions and weights of enclosure system and general contractor will be responsible for determining the pad requirements for supporting those items.
5. Communications on existing Onan Automatic Transfer Switch – The only communications requirement between the Onan Transfer Switch and the Kohler Generator Set is the start contacts; these contacts are either normally open or normally closed. Both Onan and Kohler use a two-wire start signal system so this should not be a problem.

The other item you needed was sound data on the weather enclosure being provided on generator set system. The factory says that this unit has a dba rating of 97 dba at 3 feet with 94 dba at 23 feet and you when you double the distance (46 feet) from enclosure you will get a 6 dba (88 dba) reduction. All of these dba rating are based on a 23 foot clear area on all four sides and if don't have that clear area your dba sound levels will change depending on background material.

## Electrical Power Systems

**KOHLER**  
GENERATORS

Equipment Sales and Rentals  
Planned Service Maintenance Contracts  
Load Bank Testing  
Emergency Service 24 Hours/Day



REV	DATE	REVISION	BY
A	8-11-03	REMOVED LOUVER DOOR, CHANGED GROUND PINS TO BUSH	JSP
B	10-07-05	ADDED NEW MODEL 350/400/450KW	JSP
C	03-03-05	ADDED NEW MODEL 350/400/450KW	JSP

NOTE: W4 X 13 BEAMS REQUIRED AT SAME MOUNTING LOCATION AS TANK FOR FLORIDA DEPARTMENT OF ENVIRONMENTAL RESOURCES MANAGEMENT. ENCLOSURE DRAWING # 1115-6301

FOR ESTIMATED TOTAL PACKAGE WEIGHT ADD THE FOLLOWING ITEMS:

ENCLOSURE WITH SILENCER WEIGHT = 522KG [1150LBS]  
 APPROXIMATE GENSET WEIGHT (WET) (SEE CHART B) = \_\_\_\_\_  
 TANK WEIGHT (DRY) (SEE CHART A) = \_\_\_\_\_

ESTIMATED TOTAL WEIGHT = \_\_\_\_\_

TANK INFORMATION (CHART A)					
DWG NO.	GALLONS	H DIM.	L DIM.	TANK WEIGHT (DRY)	
1119-7751	350	457 [18.0]	3680 [144.9]	725KG	[1597LBS]
1119-7752	420	559 [22.0]	3680 [144.9]	796KG	[1752LBS]
1119-7753	500	635 [25.0]	3680 [144.9]	845KG	[1858LBS]
1119-7754	660	838 [33.0]	3680 [144.9]	973KG	[2140LBS]
1119-7755	800	914 [36.0]	3912 [154.0]	1071KG	[2356LBS]
1119-7756	850	914 [36.0]	4166 [164.0]	1125KG	[2477LBS]

GENSET WEIGHT (WET) (CHART B)		
GENSET MODELS	APPROX. WEIGHT	
350/400/450KW	3272KG	[7200LBS]
350/400 REOZVC	3182KG	[7000LBS]

WEATHER ENCLOSURE AND SILENCER  
 W/SUB BASE TANK OPTION  
 350/400/450 KW SERIES 60  
 350/400 KW 350/400 12.1A65

METRIC CAD FILE

DIMENSIONS IN [ ] ARE INCH EQUIVALENT

UNLESS OTHERWISE SPECIFIED:  
 1) DIMENSIONS ARE IN MILLIMETERS AND TOLERANCES ARE:  
 2.5 ± 0.1  
 3.0 ± 0.1  
 4.0 ± 0.1  
 5.0 ± 0.1  
 6.0 ± 0.1  
 7.0 ± 0.1  
 8.0 ± 0.1  
 9.0 ± 0.1  
 10.0 ± 0.1

TRAMONT CORPORATION  
 DIMENSION PRINT

DATE: 1-13-05  
 DRAWN: JSP  
 CHECKED: JSP  
 SCALE: 1:1  
 SHEET: 1-3  
 PROJECT: 1400-7765-7770  
 FLORIDA PERM:

MODELS	PACKAGE #	GALLONS	PACKAGE WEIGHT W/ FUEL	A	B
350 kW	1400-7765	350	5650KG [12432LBS.]	3680 [144.9]	4290 [168.9]
400 kW	1400-7767	420	5947KG [13084LBS.]	3680 [144.9]	4290 [168.9]
450 kW	1400-7768	660	6898KG [15176LBS.]	3680 [144.9]	4290 [168.9]
350 kW	1400-7770	850	7664KG [16862LBS.]	4166 [164.0]	4775 [188.0]
400 kW	1400-7769	800	7448KG [16386LBS.]	3912 [154.0]	4521 [178.0]
350 kW	1400-7766	350	5560KG [12252LBS.]	3680 [144.9]	4290 [168.9]
400 kW	1400-7766	420	5856KG [12884LBS.]	3680 [144.9]	4290 [168.9]
450 kW	1400-7766	660	6898KG [15176LBS.]	3680 [144.9]	4290 [168.9]
350 kW	1400-7770	850	7664KG [16862LBS.]	4166 [164.0]	4775 [188.0]
400 kW	1400-7769	800	7448KG [16386LBS.]	3912 [154.0]	4521 [178.0]
350 kW	1400-7765	350	5560KG [12252LBS.]	3680 [144.9]	4290 [168.9]
400 kW	1400-7766	420	5856KG [12884LBS.]	3680 [144.9]	4290 [168.9]
450 kW	1400-7768	660	6898KG [15176LBS.]	3680 [144.9]	4290 [168.9]
350 kW	1400-7770	850	7664KG [16862LBS.]	4166 [164.0]	4775 [188.0]
400 kW	1400-7769	800	7448KG [16386LBS.]	3912 [154.0]	4521 [178.0]
350 kW	1400-7770	850	7574KG [1662LBS.]	4166 [164.0]	4775 [188.0]
400 kW	1400-7769	800	7357KG [16186LBS.]	3912 [154.0]	4521 [178.0]
350 kW	1400-7765	350	5607KG [1232LBS.]	3680 [144.9]	4290 [168.9]
400 kW	1400-7767	420	6163KG [13558LBS.]	3680 [144.9]	4290 [168.9]
450 kW	1400-7768	660	6807KG [14976LBS.]	3680 [144.9]	4290 [168.9]
350 kW	1400-7769	800	7357KG [16186LBS.]	3912 [154.0]	4521 [178.0]
400 kW	1400-7770	850	7574KG [1662LBS.]	4166 [164.0]	4775 [188.0]

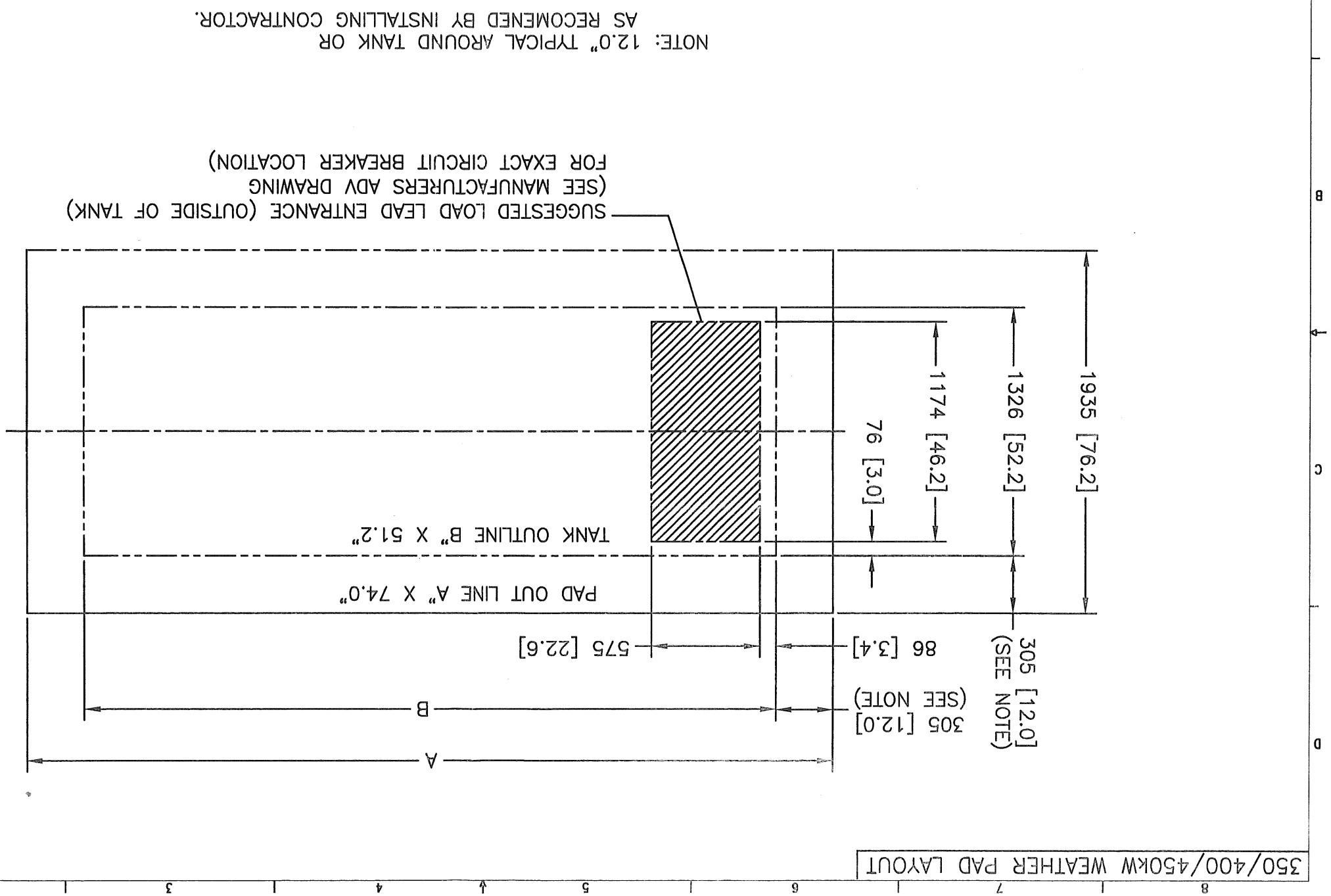
REV	DATE	BY
A	8-11-05	ADDED SHIP UP
B	10-07-05	ADDED NEW MODEL 350/400/450kW
C	03-08-05	ADDED NEW MODEL 350/400 REOZVC

350/400/450 kW SERIES 60  
350/400 kW 350/400 12.1A65

TRAMONT CORPORATION  
TYPICAL PAD LAYOUT  
1400-7765-7770

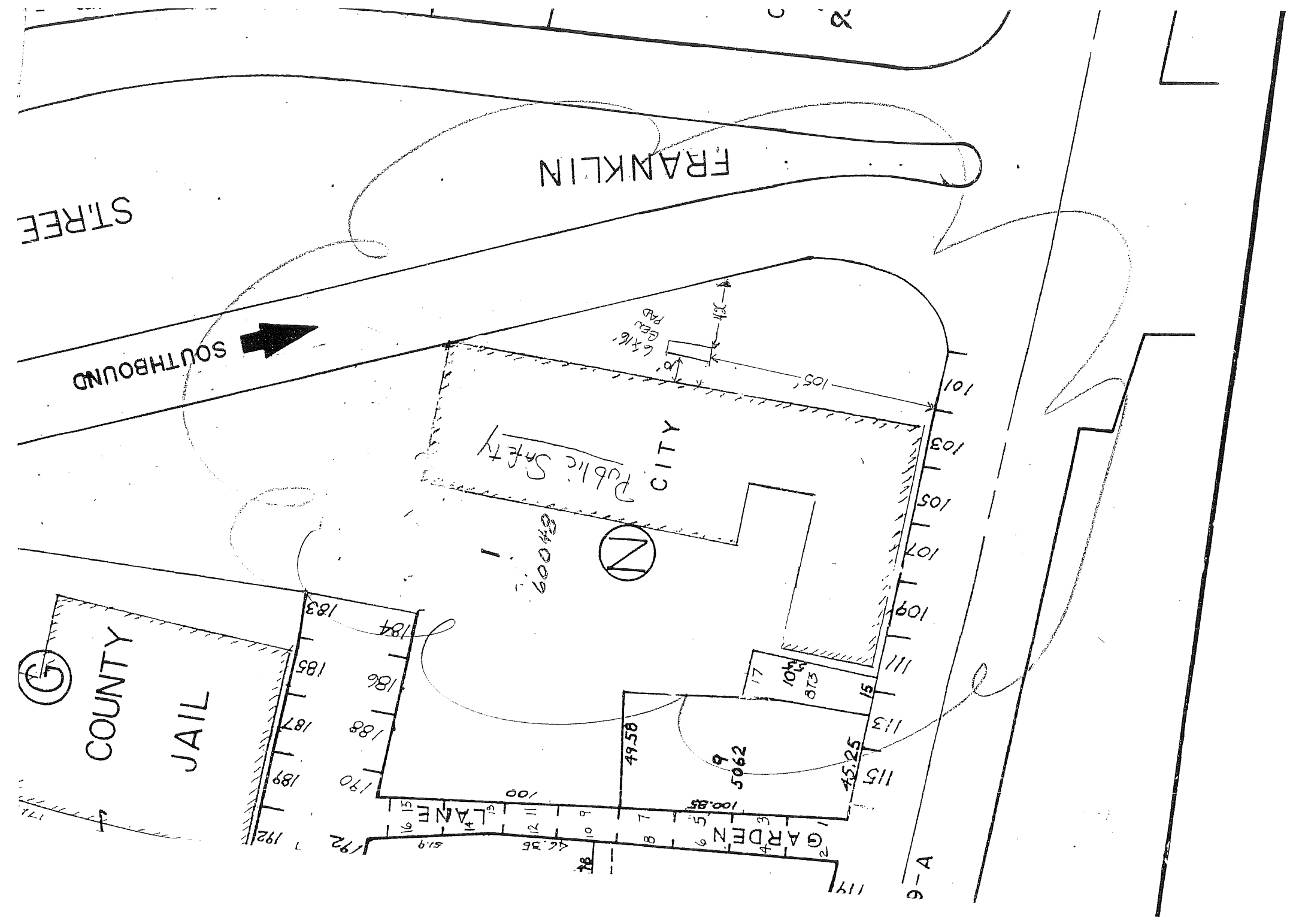
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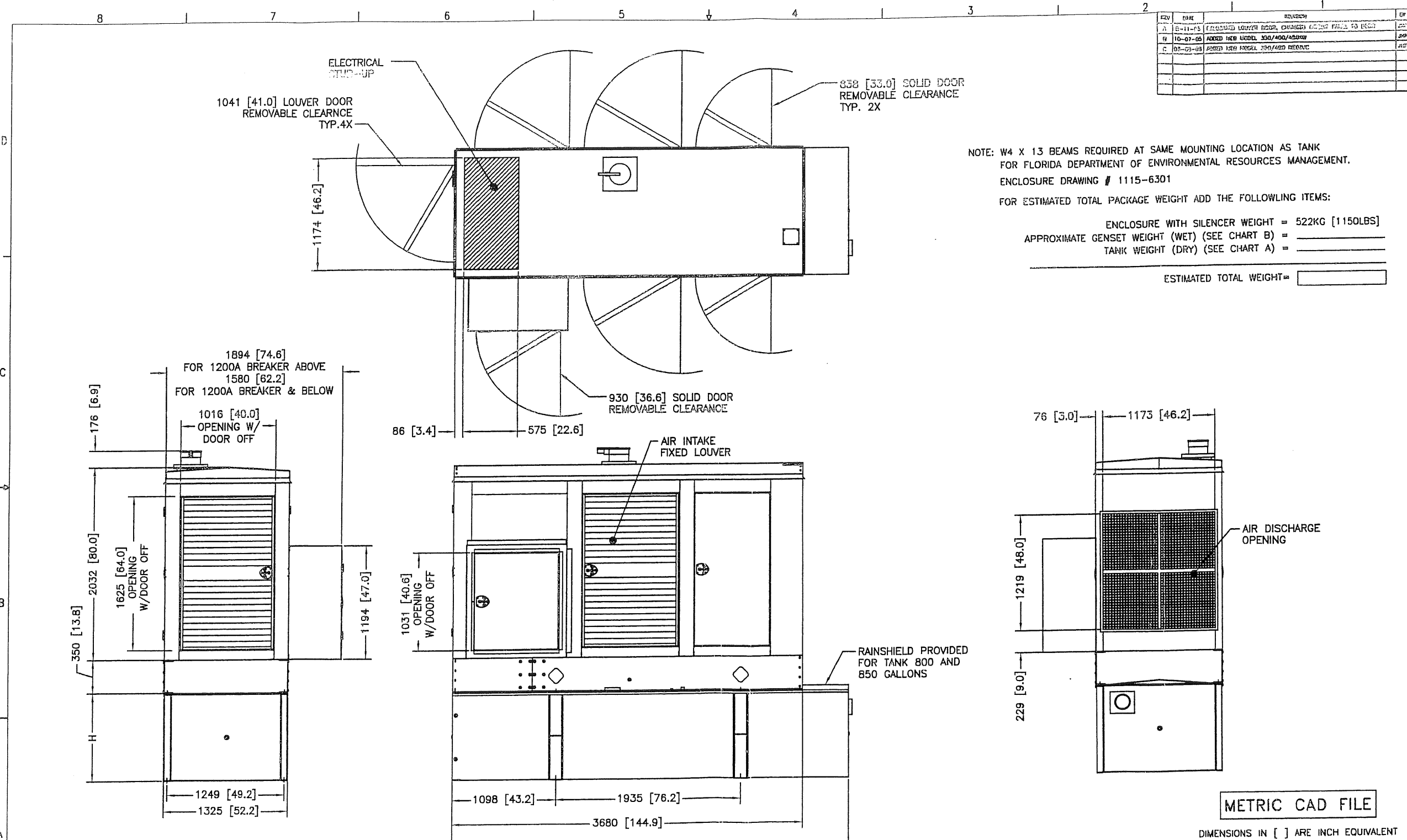
METRIC CAD FILE



350/400/450kW WEATHER PAD LAYOUT

REV	DATE	BY
A	8-11-05	ADDED SHIP UP
B	10-07-05	ADDED NEW MODEL 350/400/450kW
C	03-08-05	ADDED NEW MODEL 350/400 REOZVC





REV	DATE	DESCRIPTION	BY
A	05-11-03	REMOVED LOUVER DOOR, CHANGED CONTACT PANEL TO BECU	JSP
B	10-07-05	ADDED NEW MODEL 350/400/450KW	JSP
C	07-09-08	ADDED NEW MODEL 350/400/450KW	JSP

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GENSET MODELS	APPROX. WEIGHT
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METRIC CAD FILE

DIMENSIONS IN [ ] ARE INCH EQUIVALENT

WEATHER ENCLOSURE AND SILENCER  
 W/SUB BASE TANK OPTION  
 350/400/450 KW SERIES 60  
 350/400 KW 350/400 12.1A65

TRAMONT CORPORATION  
 DIMENSION PRINT

1 400-7765-7770