

City of Portland, Maine – Building or Use Permit Application 389 Congress Street, 04101, Tel: (207) 874-8703, FAX: 874-8716

Location of Construction: 198 Pheasant Hill Drive		Owner: **Scott Cohen	Phone: 207-774-9544	Permit No: 990916
Owner Address: ** P.O. Box 9715-350, Portland, ME 04104	Lessee/Buyer's Name:	Phone:	BusinessName:	<div style="border: 2px solid black; padding: 5px; text-align: center;"> PERMIT ISSUED Permit Issued: AUG 23 1999 CITY OF PORTLAND </div>
Contractor Name: Owner	Address:	Phone:		
Past Use: 1-Family	Proposed Use: Same	COST OF WORK: \$ 600.00	PERMIT FEE: \$ 30.00	
Proposed Project Description: Attach experimental wind turbine to wood pole for six months.		FIRE DEPT. <input type="checkbox"/> Approved <input type="checkbox"/> Denied	INSPECTION: U Use Group: Type:	Zone: CBL: R-5 PRS 10-99
		Signature:	Signature:	Zoning Approval: Special Zone or Reviews: <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan maj <input type="checkbox"/> minor <input type="checkbox"/> mm <input type="checkbox"/>
Proposed Project Description: Attach experimental wind turbine to wood pole for six months.		PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)		
Permit Taken By: UB		Date Applied For: 8-13-99		
		Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved with Conditions <input type="checkbox"/> Denied	Signature: _____ Date: _____	

- This permit application does not preclude the Applicant(s) from meeting applicable State and Federal rules.
- Building permits do not include plumbing, septic or electrical work.
- 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..

***Send To: Scott Cohen
P.O. Box 9715-350
Portland, ME 04104

PERMIT ISSUED
WITH REQUIREMENTS

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 provisions of the code(s) applicable to such permit

8-13-99

SIGNATURE OF APPLICANT ADDRESS: DATE: PHONE:

RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE PHONE:

White-Permit Desk Green-Assessor's Canary-D.P.W. Pink-Public File Ivory Card-Inspector

- Zoning Appeal**
- Variance
 - Miscellaneous
 - Conditional Use
 - Interpretation
 - Approved
 - Denied

- Historic Preservation**
- Not in District or Landmark
 - Does Not Require Review
 - Requires Review

- Action:**
- Approved
 - Approved with Conditions
 - Denied

Date: _____

CEO DISTRICT

2

COMMENTS

8/31/99 - Attempted to do Pre-Con - Does not meet conditions of BOCA 96 Sec 3108 - Referred to P.S.H. (K)

9/7/99 Talked w/ P.S.H. He agreed to waive Requirements of 3108 (K)

9/14/99 - Wind turbine installed - appears to be bolted properly to pole per plans - Ran to ground wires per manufac. spec.s.

12-14-99 Close Permit JL

Inspection Record

Type	Date
Foundation: _____	_____
Framing: _____	_____
Plumbing: _____	_____
Final: _____	_____
Other: _____	_____

BUILDING PERMIT REPORT

DATE: 16 Aug 99 ADDRESS: 198 Pleasant Hill Dr. CBL: 411-A-024
 REASON FOR PERMIT: Experimental wind Turbine (Temp. 6 Months)
 BUILDING OWNER: Scott Cohen
 PERMIT APPLICANT: 11 /Contractor 11
 USE GROUP U CONSTRUCTION TYPE _____

The City's Adopted Building Code (The BOCA National Building Code/1996 with City Amendments)
 The City's Adopted Mechanical Code (The BOCA National Mechanical Code/1993)

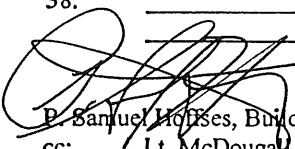
CONDITION(S) OF APPROVAL

This permit is being issued with the understanding that the following conditions are met: *1, *27 *35 #31

Approved with the following conditions:

- *1. This permit does not excuse the applicant from meeting applicable State and Federal rules and laws.
2. Before concrete for foundation is placed, approvals from the Development Review Coordinator and Inspection Services must be obtained. (A 24 hour notice is required prior to inspection)
3. Foundation drain shall be placed around the perimeter of a foundation that consists of gravel or crushed stone containing not more than 10 percent material that passes through a No. 4 sieve. The drain shall extend a minimum of 12 inches beyond the outside edge of the footing. The thickness shall be such that the bottom of the drain is not higher than the bottom of the base under the floor, and that the top of the drain is not less than 6 inches above the top of the footing. The top of the drain shall be covered with an approved filter membrane material. Where a drain tile or perforated pipe is used, the invert of the pipe or tile shall not be higher than the floor elevation. The top of joints or top of perforations shall be protected with an approved filter membrane material. The pipe or tile shall be placed on not less than 2" of gravel or crushed stone, and shall be covered with not less than 6" of the same material. Section 1813.5.2
4. Foundations anchors shall be a minimum of 1/2" in diameter, 7" into the foundation wall, minimum of 12" from corners of foundation and a maximum 6' o.c. between bolts. (Section 2305.17)
5. Waterproofing and dampproofing shall be done in accordance with Section 1813.0 of the building code.
6. Precaution must be taken to protect concrete from freezing. Section 1908.0
7. It is strongly recommended that a registered land surveyor check all foundation forms before concrete is placed. This is done to verify that the proper setbacks are maintained.
8. Private garages located beneath habitable rooms in occupancies in Use Group R-1, R-2, R-3 or I-1 shall be separated from adjacent interior spaces by fire partitions and floor/ceiling assembly which are constructed with not less than 1-hour fire resisting rating. Private garages attached side-by-side to rooms in the above occupancies shall be completely separated from the interior spaces and the attic area by means of 1/2 inch gypsum board or the equivalent applied to the garage means of 1/2 inch gypsum board or the equivalent applied to the garage side. (Chapter 4, Section 407.0 of the BOCA/1996)
9. All chimneys and vents shall be installed and maintained as per Chapter 12 of the City's Mechanical Code. (The BOCA National Mechanical Code/1993). Chapter 12 & NFPA 211
10. Sound transmission control in residential building shall be done in accordance with Chapter 12, Section 1214.0 of the City's Building Code.
11. Guardrails & Handrails: A guardrail system is a system of building components located near the open sides of elevated walking surfaces for the purpose of minimizing the possibility of an accidental fall from the walking surface to the lower level. Minimum height all Use Groups 42", except Use Group R which is 36". In occupancies in Use Group A, B, H-4, I-1, I-2, M and R and public garages and open parking structures, open guards shall have balusters or be of solid material such that a sphere with a diameter of 4" cannot pass through any opening. Guards shall not have an ornamental pattern that would provide a ladder effect. (Handrails shall be a minimum of 3e4" but not more than 38". Use Group R-3 shall not be less than 30", but not more than 38".) Handrail grip size shall have a circular cross section with an outside diameter of at least 1 1/4" and not greater than 2". (Sections 1021 & 1022.0) - Handrails shall be on both sides of stairway. (Section 1014.7)
12. Headroom in habitable space is a minimum of 7'6". (Section 1204.0)
13. Stair construction in Use Group R-3 & R-4 is a minimum of 10" tread and 7 3/4" maximum rise. All other Use Group minimum 11" tread, 7" maximum rise. (Section 1014.0)
14. The minimum headroom in all parts of a stairway shall not be less than 80 inches. (6'8") 1014.4
15. Every sleeping room below the fourth story in buildings of Use Groups R and I-1 shall have at least one operable window or exterior door approved for emergency egress or rescue. The units must be operable from the inside without the use of special knowledge or separate tools. Where windows are provided as means of egress or rescue they shall have a sill height not more than 44 inches (1118mm) above the floor. All egress or rescue windows from sleeping rooms shall have a minimum net clear opening height dimension of 24 inches (610mm). The minimum net clear opening width dimension shall be 20 inches (508mm), and a minimum net clear opening of 5.7 sq. ft. (Section 1018.6)
16. Each apartment shall have access to two (2) separate, remote and approved means of egress. A single exit is acceptable when it exits directly from the apartment to the building exterior with no communications to other apartment units. (Section 1010.1)

17. All vertical openings shall be enclosed with construction having a fire rating of at least one (1) hour, including fire doors with self closer's. (Over 3 stories in height requirements for fire rating is two (2) hours.) (Section 710.0)
18. The boiler shall be protected by enclosing with (1)hour fire rated construction including fire doors and ceiling, or by providing automatic extinguishment. (Table 302.1.1)
19. All single and multiple station smoke detectors shall be of an approved type and shall be installed in accordance with the provisions of the City's Building Code Chapter 9, Section 920.3.2 (BOCA National Building Code/1996), and NFPA 101 Chapter 18 &19. (Smoke detectors shall be installed and maintained at the following locations):
 - In the immediate vicinity of bedrooms
 - In all bedrooms
 - In each story within a dwelling unit, including basements
 In addition to the required AC primary power source, required smoke detectors in occupancies in Use Groups R-2, R-3 and I-1 shall receive power from a battery when the AC primary power source is interrupted. (Interconnection is required) Section 920.3.2.
20. A portable fire extinguisher shall be located as per NFPA #10. They shall bear the label of an approved agency and be of an approved type. (Section 921.0)
21. The Fire Alarm System shall maintained to NFPA #72 Standard.
22. The Sprinkler System shall maintained to NFPA #13 Standard.
23. All exit signs, lights and means of egress lighting shall be done in accordance with Chapter 10 Section & Subsections 1023.0 & 1024.0 of the City's Building Code. (The BOCA National Building Code/1996)
24. Section 25-135 of the Municipal Code for the City of Portland states, "No person or utility shall be granted a permit to excavate or open any street or sidewalk from the time of November 15 of each year to April 15 of the following year".
25. The builder of a facility to which Section 4594-C of the Maine State Human Rights Act Title 5 MRSA refers, shall obtain a certification from a design professional that the plans commencing construction of the facility, the builder shall submit the certification the Division of Inspection Services.
26. Ventilation shall meet the requirements of Chapter 12 Sections 1210.0 of the City's Building Code. (Crawl spaces & attics).
- *27. All electrical, plumbing and HVAC permits must be obtained by a Master Licensed holders of their trade. No closing in of walls until all electrical (min.72 hours notice) and plumbing inspections have been done.
28. All requirements must be met before a final Certificate of Occupancy is issued.
29. All building elements shall meet the fastening schedule as per Table 2305.2 of the City's Building Code (the BOCA National Building Code/1996).
30. Ventilation of spaces within a building shall be done in accordance with the City's Mechanical Code (The BOCA National Mechanical Code/1993). (Chapter M-16)
31. Please read and implement the attached Land Use Zoning report requirements. *shall be removed 6 months from the date of issuance*
32. Boring, cutting and notching shall be done in accordance with Sections 2305.4.4, 2305.5.1 and 2305.5.3 of the City's Building Code.
33. Glass and glazing shall meet the requirements of Chapter 24 of the building code.
34. All signage, shall be done in accordance with Section 3102.0 signs of the City's Building Code, (The BOCA National Building Code 1996).
- *35. The proposed experimental wind turbine secured to an existing pole shall meet the requirements set forth in the bldg. Code For Radio and Television Towers. For Loads - Section 3108.0 -
36. _____
37. _____
38. _____


 P. Samuel Hoffes, Building Inspector
 cc: Lt. McDougal, PFD
 Marge Schmuckal, Zoning Administrator

PSH 7/24/99

****On the basis of plans submitted and conditions placed on these plans any deviations shall require a separate approval.**

THIS IS NOT A PERMIT/CONSTRUCTION CANNOT COMMENCE UNTIL THE PERMIT IS ISSUED

**Building or Use Permit Pre-Application
Additions/Alterations/Accessory Structures
To Detached Single Family Dwelling**

In the interest of processing your application in the quickest possible manner, please complete the Information below for a Building or Use Permit.

NOTEIf 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: 198 Pheasant Hill Drive

Tax Assessor's Chart, Block & Lot Number Chart# 411 Block# A Lot# 024		Owner: * Scott Cohen	Telephone#: 207 774-9544
Owner's Address: PORTLAND * PO BOX 9715-350, 04104		Lessee/Buyer's Name (If Applicable)	Cost Of Work: Fee \$ 600. ⁰⁰ \$ 30
Proposed Project Description:(Please be as specific as possible) attach experimental wind turbine to wood pole for six months			
Contractor's Name, Address & Telephone self - OWNER		(1-family)	Rec'd By: UB

Separate permits are required for Internal & External Plumbing, HVAC and Electrical installation.

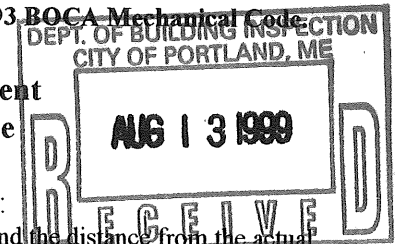
- All construction must be conducted in compliance with the 1996 B.O.C.A. Building Code as amended by Section 6-Art II.
- All plumbing must be conducted in compliance with the State of Maine Plumbing Code.
- All Electrical Installation must comply with the 1996 National Electrical Code as amended by Section 6-Art III.
- HVAC(Heating, Ventilation and Air Conditioning) installation must comply with the 1993 BOCA Mechanical Code.

You must Include the following with you application:

- 1) A Copy of Your Deed or Purchase and Sale Agreement
- 2) A Copy of your Construction Contract, if available
- 3) A Plot Plan (Sample Attached)

If there is expansion to the structure, a complete plot plan (Site Plan) must include:

- The shape and dimension of the lot, all existing buildings (if any), the proposed structure and the distance from the actual property lines. Structures include decks porches, a bow windows cantilever sections and roof overhangs, as well as, sheds, pools, garages and any other accessory structures.
- Scale and required zoning district setbacks



4) Building Plans (Sample Attached)

A complete set of construction drawings showing all of the following elements of construction:

- Cross Sections w/Framing details (including porches, decks w/ railings, and accessory structures)
- Floor Plans & Elevations
- Window and door schedules
- Foundation plans with required drainage and dampproofing
- Electrical and plumbing layout. Mechanical drawings for any specialized equipment such as furnaces, chimneys, gas equipment. HVAC equipment (air handling) or other types of work that may require special review must be included.

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/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 of applicant: S. Cohen	Date: Aug 13, 1999
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Building Permit Fee: \$25.00 for the 1st \$1000.cost plus \$5.00 per \$1,000.00 construction cost thereafter.

Inspection Services
Michael J. Nugent
Manager



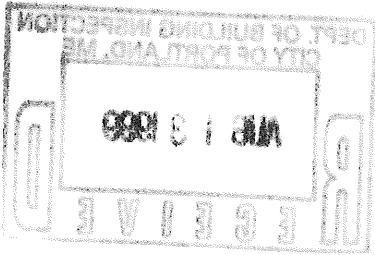
Department of Urban Development
Joseph E. Gray, Jr.
Director

CITY OF PORTLAND

Congratulations !!!!!

**Building or Use Permit Application
Additions/Alterations/Accessory Structures
To Detached Single Family Dwelling**

As an applicant for a building permit, you are about to enter into a relationship with our Office. We welcome any questions, comments or suggestions that will make the process more efficient. Attached you will find an application and some samples of the submissions you will provide at application time. Please read **ALL** of the information and if you need any further assistance please call 874-8703 or 874-8693.



ANASTOS
DEVELOP
P.O.Box
Yarmout

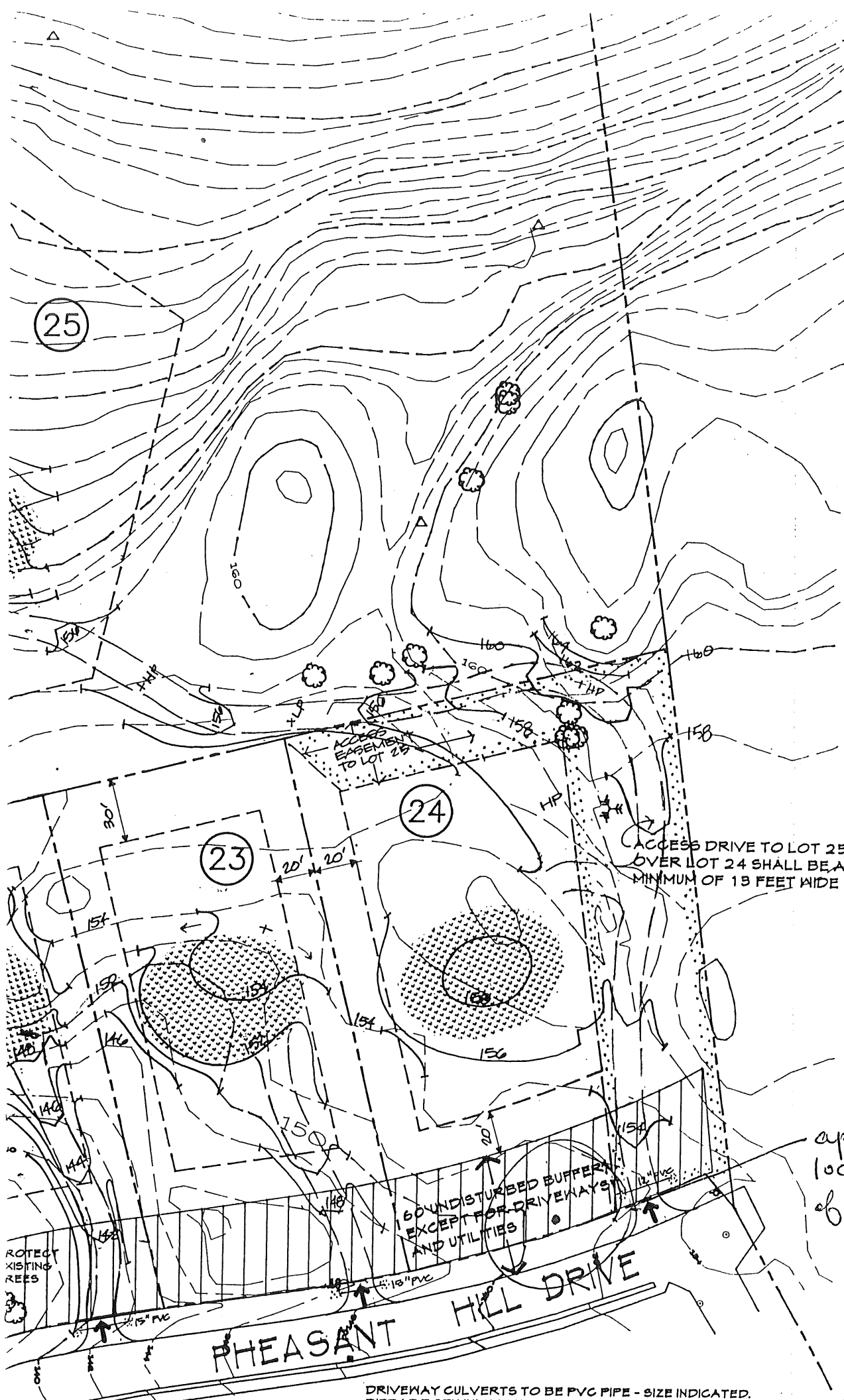
TERRENC
ASSOCIAT
LANDSCA
106 Main
Yarmout

HUNTER-
ENGINEER
1321 Was
Portland

ROYAL RI
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NOTES:
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ROYAL RIVER S
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BY OWEN HASI
DARTMOUTH CC

THE ENTIRE SIT
AND/OR MAINT/
SITEPLAN, APPI
AUTHORITY OR
REQUIRED FOR
DEVIATION FROM
INCLUDING, WITH
GRAPHY; DRAIN
RETENTION OF
ACCESS; SIZE,
OF PARKING AI-
SIZE OF BUILDI



ACCESS DRIVE TO LOT 25
OVER LOT 24 SHALL BE A
MINIMUM OF 13 FEET WIDE

16' UNDISTURBED BUFFER
EXCEPT FOR DRIVEWAYS
AND UTILITIES

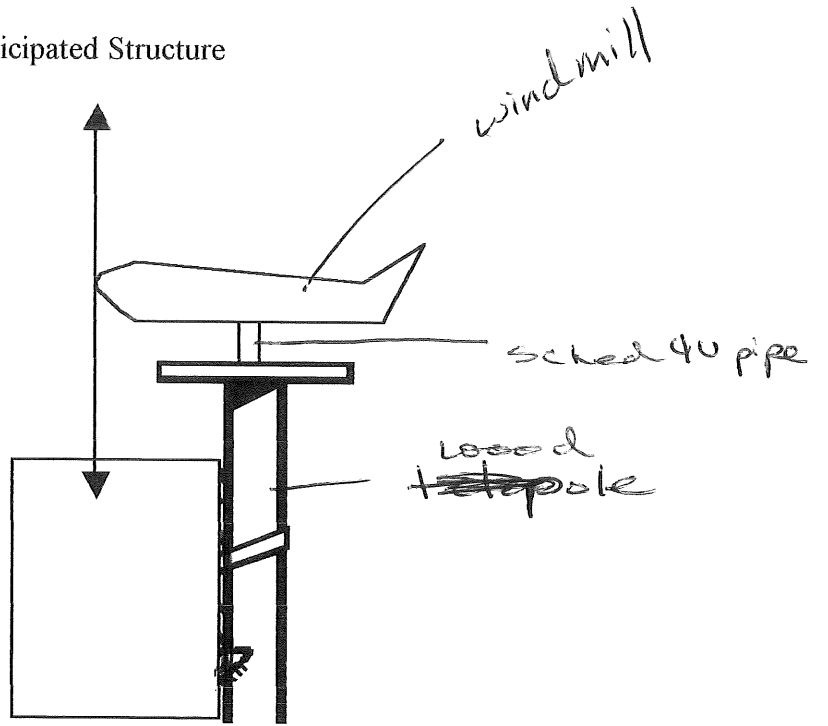
approx
location
of pole

RHEASANT HILL DRIVE

DRIVEWAY CULVERTS TO BE PVC PIPE - SIZE INDICATED.

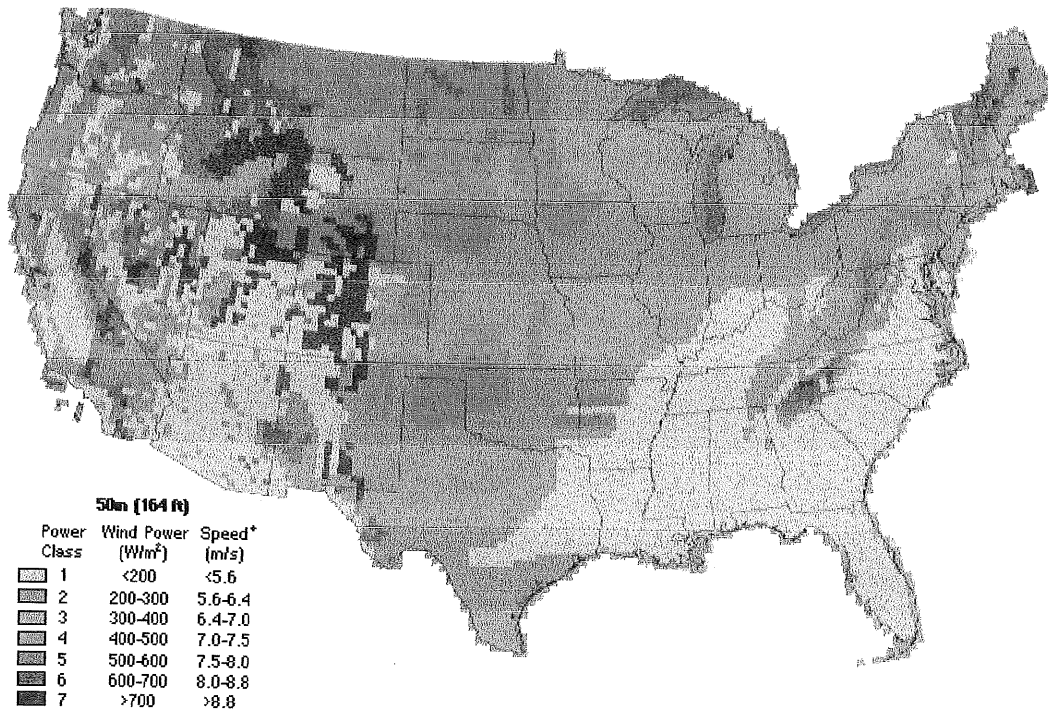
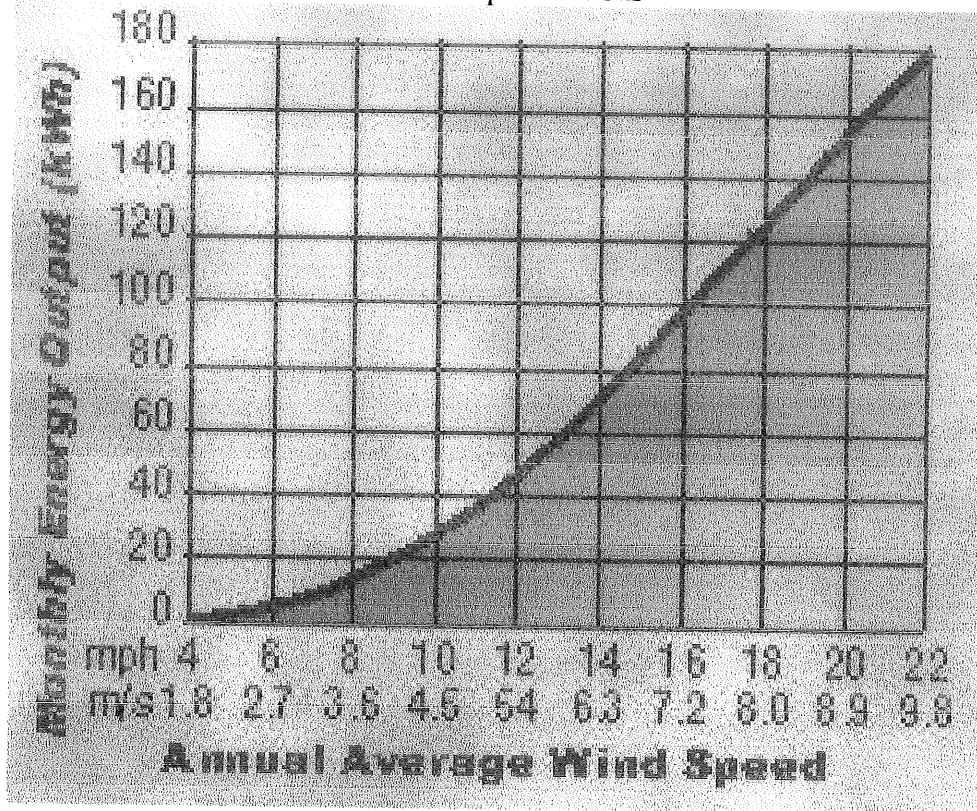
PROTECT
EXISTING
TREES

Anticipated Structure



Custom Welded Unit to support Wind Turbine

Turbine Specifications



*Equivalent wind speed at sea level for a Rayleigh distribution.

Description of Experimental Installation of AIR 403 Wind Turbine Manufactured by Southwest Windpower at the home of Scott Cohen 198 Pheasant Hill Drive Portland

- The wind turbine is to be mounted on a 1.5" Schedule 40 pipe.
- All electrical cable will be enclosed inside of this pipe and other similar pipe or conduit.
- The mounting pipe will be attached to a steel mounting structure that will be attached and if necessary grounded for lightning strikes.
- The mounting structure will either be attached to the top or by a bracket to the side of a standard telephone pole that is owned by Mr. Cohen and located on the property.
- Turbine specifications: Rotor Diameter 46", Blades 24", Weight 13 lbs., start up windspeed 7 mph, voltage 48 volts DC, output 400 watts at 28 mph (12.5 m/s).
- Location windspeed is thought to range from 5.6 m/s to 7.0 m/s on average based on data collected from the US NWS.
- Blades are variable pitch aerolastic carbon matrix.
- Aircraft quality aluminum housing 14" in length.
- Brushless neodymium cubic curve alternator for quiet operation.
- Internal battery charge regulator.
- Safety protection electronic controls for voltage and rotor RPM.
- Only 2 moving parts.

