

Gary Wood
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Building Inspections
City of Portland

22 April 2016

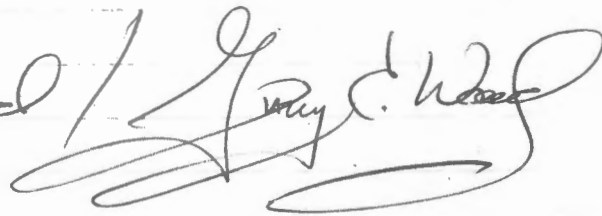
To whom it may concern

Please replace the Foundation System
Approved in my building permit # 2016-00665
with the attached Replacement showing
the Diamond Pier DP-50 system using
50" pins.

I thank you.

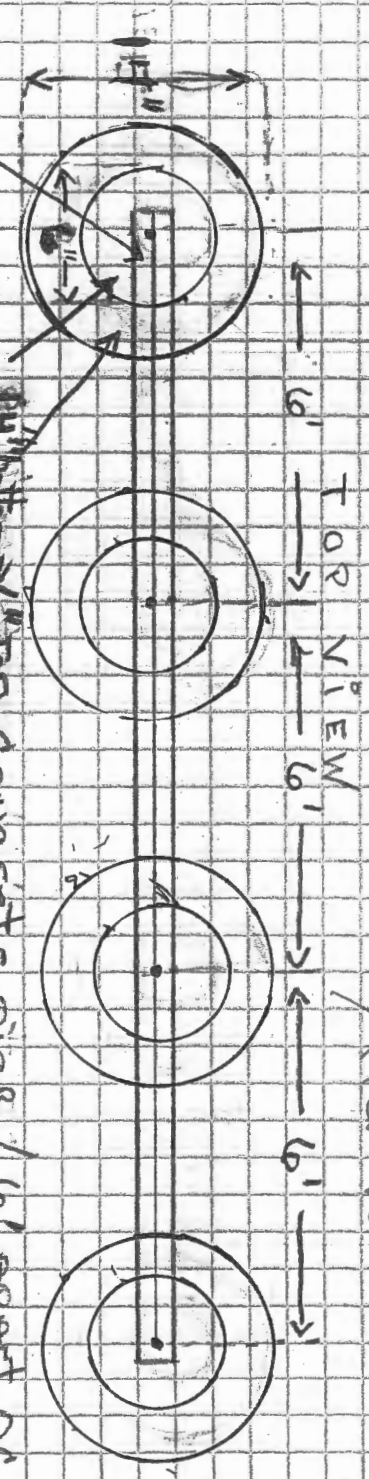
Sincerely,

Gary C. Wood



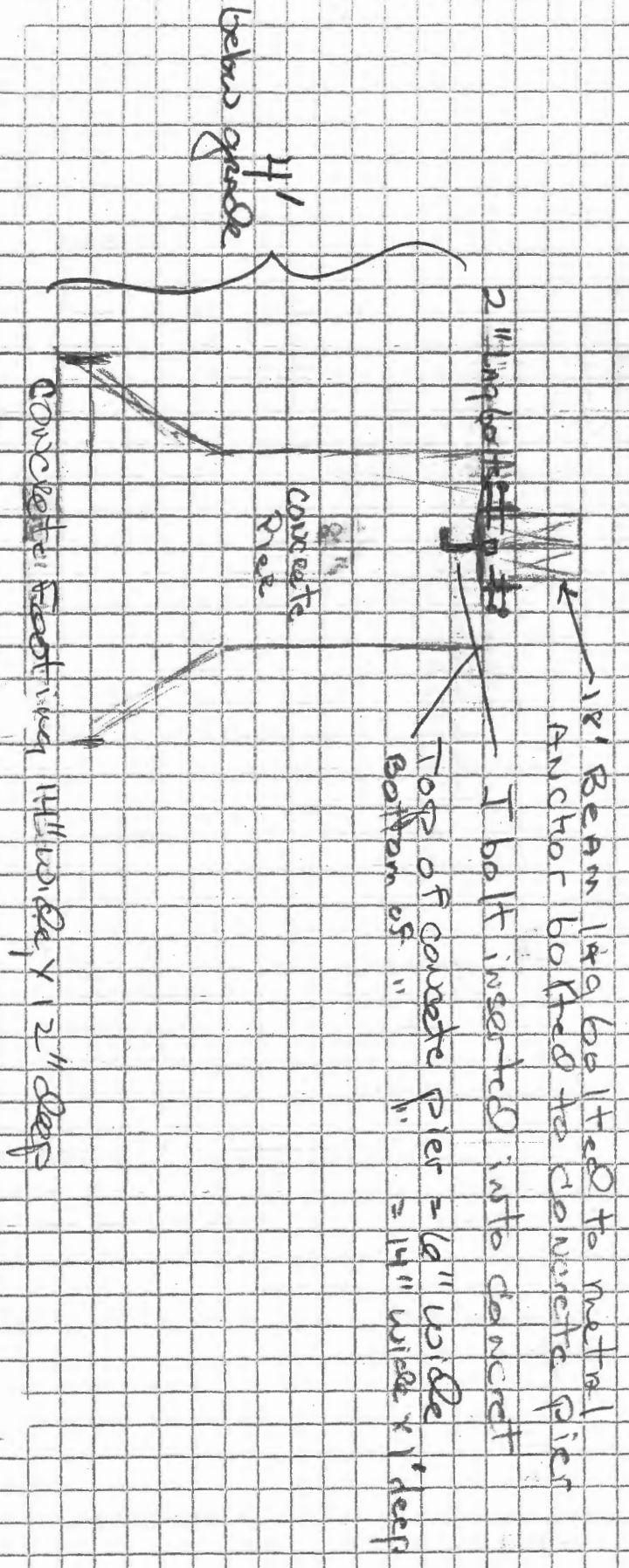
DECK PLAN FOR HARRY WOOD, 104 VANNAH AVE

FOUNDATION SYSTEM / ~~PIER~~ ^{DIAMOND} ~~FOUNDATION SYSTEM~~



14" bottom \rightarrow 14" top concrete pier / 6' apart (tapered 5/4" deep tapered concrete footing)

18' Beam made of (2) 2" x 8"



18' Beam 1/2" dia bolted to metal anchor - bolted to concrete pier

I bolt inserted into concrete

TOP OF concrete pier = 14" wide

BOTTOM OF " = 12" wide x 12" deep

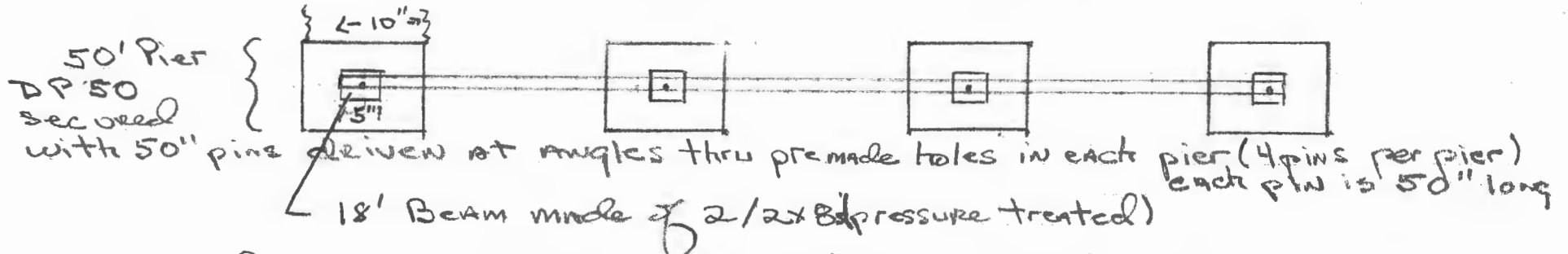
CONCRETE RISE

CONCRETE FOOTING 14" wide, x 12" deep

Deck Plan for Gary Wood 104 Vannah Ave

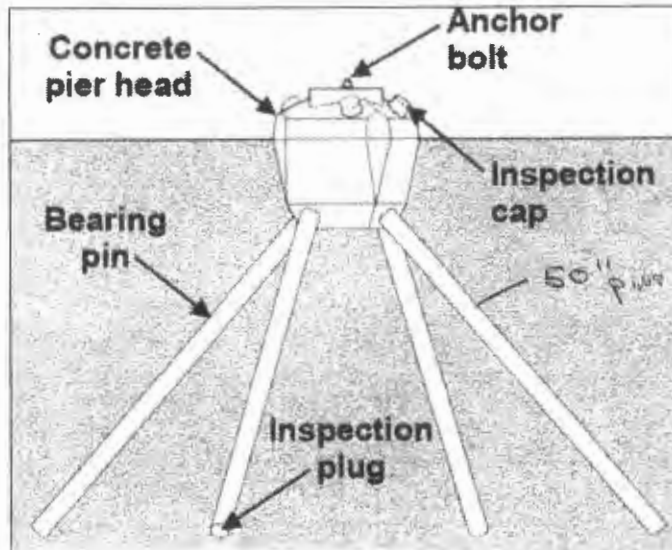
Replacement for Foundation System
New system uses Diamond Pier System
in silt/clay soil

TOP VIEW
| ← 6'0C → | ← 6'0C → | ← 6'0C → |



Beam bolted to metal anchor bolted to concrete pier using pre set bolt / 2" Lag bolts used to bolt beam to piers

Details



Downloads

Details

- [DP-50 \(pdf\) using 50" pins](#)
- [DP-50 \(dwg\)](#)
- [DP-75E \(pdf\)](#)
- [DP-75E \(dwg\)](#)
- [DP-100E \(pdf\)](#)
- [DP-100E \(dwg\)](#)
- [DP-200E \(pdf\)](#)
- [DP-200E \(dwg\)](#)
- [4 Bolt Patterns](#)

More Info

- [Product Matrix](#)
- [Skirt Wall Parallel to Joists \(pdf\)](#)
- [Skirt Wall Perpendicular to Joists \(pdf\)](#)

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DiamondPier

FOUNDATION SYSTEM *with Pin Pile Technology*

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Residential

[Warranty Info](#)

Diamond Piers® are pre-engineered foundation systems for all types of secondary residential structures – decks, porches, walkways, sheds, stairs, gazebos – you name it. If it's in your backyard it can probably be built on Diamond Piers. Just minutes to install – without excavation- the Piers provide an instant heavy-duty foundation, that allows builders to start framing immediately. Inspectors can check for Pin length anytime after installation. Just set the Pier, drive the Pins, connect your bracket and start building. This saves time and scheduling headaches, and there's no need to dig deep holes, pour concrete, or repair the landscape.

Based on two decades of use by Public Agencies across the US, the latest versions of the Diamond Pier – DP-50 and DP-75 – are designed for Normal Construction Conditions, and follow a simple load chart and a basic knowledge of local soils. (See [Capacities](#))

Their light weight and ease of installation make Diamond Pier the perfect choice for any residential project, and they are covered by a Warranty that lasts the life of your structure. They are sold direct, or through stocking or special order retail outlets in your area. Click on the dealer button on this page, or go to [Contact Us](#) to reach your nearest Diamond Pier Representative.

Downloads

- [DP-50 ESR Report](#)
- [Frost Performance Report](#)
- [Observational Report](#)
- [National Performance Affidavits](#)
- [Wisconsin Code Approval](#)
- [Minnesota Code Compliance](#)
- [Nebraska Engineer's Review](#)

Third Party Test Report

- [Full Load Test Report 16mb](#)
- [Report Only 2mb](#)
- [Appendix Only 8mb](#)
- [Cross Pin Group Test Text](#)
- [Cross Pin Group Test Full](#)

Documents

- [Brochure](#)
- [Quick Installation Guide](#)
- [Installation Manual](#)
- [Load Chart](#)

Northern Midwest: 612-309-2640 or 708-267-6330
Rest of United States: 866-255-9478

Pin Foundations, Inc.
Gig Harbor, Washington

General Phone: 253-858-8809
General Email: Info@DiamondPiers.com

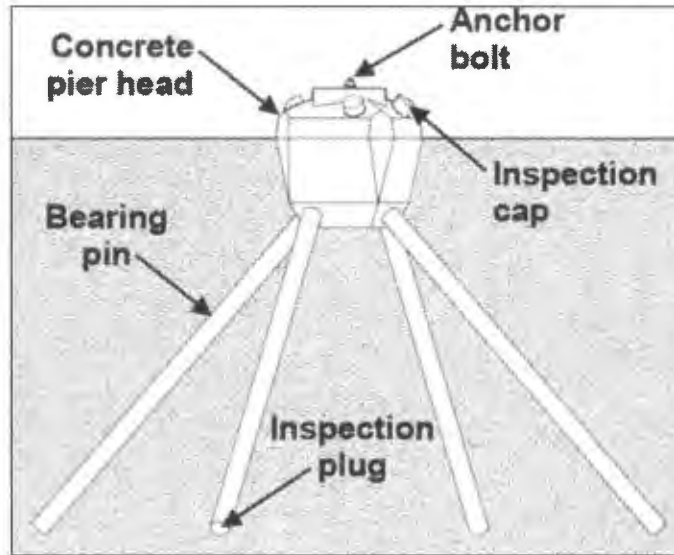
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Capacities

Normal Soil Conditions

Diamond Pier foundations sold through retail outlets are designed for projects that are founded in normal sound soils. Normal soils are typical in most residential neighborhoods throughout the United States and are defined in the International Residential Code (IRC) Table R401.4.1. Presumptive Load-Bearing Values of Foundation Materials.

Supporting Soils

Some soils may not be appropriate for supporting Diamond Pier foundations. Where unsound soils exist, a registered design professional may be required to review the project.

See the [Installation Manual](#) for a full description of Normal Soil Conditions

Residential Diamond Pier Load Chart

Model & Pin Length >	DP-50 ESR-1895 Code Compliant				
	DP-50 36"	DP-50 42"	DP-50 50"	DP-75 50"	DP-75 63"
Bearing in 2000 psf Sands/Gravels ¹	3600#	3600#	3600#	5150#	5850#
Bearing in 1500 psf Silts/Clays ¹	2700#	2700#	2700#	3670#	4400#
Equivalent Bearing Area	1.8 sf	1.8 sf	1.8 sf	2.58 sf	2.93 sf
Base Area Comparison	18" cylinder	18" cylinder	18" cylinder	21" cylinder	23" cylinder
Uplift	670#	920#	1175#	1215#	1380#
Lateral	575#	820#	1070#	1150#	1310#
Frost Zone Rating	12"-24"	30"-42"	48"	48"	60"

NOTES:

1. Values applicable in properly drained, sound soils with a minimum 1500 psf bearing capacity. See IRC Table R401.4.1 for complete bearing soils listing and Table notes.
2. For simple structures only. No asymmetrical, rotational, overturning, or dynamic loads. For additional information, see the full Diamond Pier Installation Manual.
3. All capacities use four pins of the specified length per foundation. Length includes that portion embedded within the foundation head.
4. DP-50 uses defined in paragraph 2.0 of ESR-1895 and per blue-bordered box above are limited to residential decks, covered decks, stairways, and walkways. For DP-50 uses beyond these types of projects, and for DP-75 applications, refer to Cross Pin Group Test Report (EEI Report No. 07-020-8). See Note 1 for applicable soils.
5. 50" Pins are recommended for use with the DP-50 where uplift and/or lateral loads may govern. The DP-50 comes with a 1/2" diameter embedded galvanized anchor bolt. The DP-75 comes with a 5/8" diameter embedded galvanized anchor bolt.
6. The Diamond Pier system is a shallow bearing technology that does not require "refusal" or "friction" resistance, or the professional installation monitoring or special inspection typically associated with conventional vertical or battered piling.
7. This load chart is intended for applications supported by columns, posts, and beams loaded up to but not exceeding the stated capacities. For applications where the load requirements exceed the capacities defined in this chart, a site-specific capacity review is required. Project soils data and structural loading information must be provided. Refer to "Commercial and Special-Order Project Services" and "Diamond Pier Foundations – Use and Applications"; both documents are available at www.diamondpiers.com.

Download

- [Load Chart](#)
- [Cross Pin Group Test Report](#)
- [Cross Pin Group Test Report](#)

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