

**DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK**  
**CITY OF PORTLAND**

Please Read  
Application And  
Notes, If Any,  
Attached

**INSPECTION**

**PERMIT**

Permit Number: 081152

This is to certify that LEONG PETER Y & CHRISTINE CASSIDY, ITS

has permission to Construct 24'x34' boathouse with Grave driveway

AT 67 BROOK LN PEAKS ISLAND

092 G022001

2009

provided that the person or persons who accept this permit shall comply with all of the provisions of the Statutes of the State 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 when permission procured before this building or part thereof is occupied or 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. \_\_\_\_\_  
 Health Dept. \_\_\_\_\_  
 Appeal Board \_\_\_\_\_  
 Other \_\_\_\_\_  
Department Name

*[Signature]*  
 Director - Building & Inspection Services

**PENALTY FOR REMOVING THIS CARD**

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

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

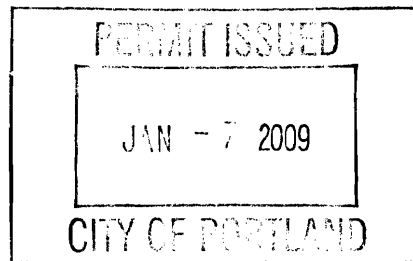
Permit No: 08-1152	Issue Date:	CBL: 092 G022001
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Location of Construction: <i>(Knickerbaker Rd)</i> 67 BROOK LN PEAKS ISLAND	Owner Name: LEONG PETER Y & CHRISTINE	Owner Address: 683 ISLAND AVE	Phone: 207-766-5174
Business Name:	Contractor Name:	Contractor Address:	Phone:
Lessee/Buyer's Name	Phone:	Permit Type: Additions - Dwellings	Zone: <i>SR-1</i>

Past Use: Vacant Land	Proposed Use: Vacant Land - Construct 24'x34' boathouse with Gravel Driveway	Permit Fee: \$120.00	Cost of Work: \$10,000.00	CEO District: 1
Proposed Project Description: Construct 24'x34' boathouse with Gravel Driveway		FIRE DEPT: <input type="checkbox"/> Approved <input checked="" type="checkbox"/> Denied <i>N/A</i>	INSPECTION: Use Group: <i>U</i> Type: <i>SB</i> <i>IRC 2003</i>	
		Signature: _____ Signature: _____		
		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: lmd	Date Applied For: 09/10/2008	<b>Zoning Approval</b>		
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<p>1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.</p> <p>2. Building permits do not include plumbing, septic or electrical work.</p> <p>3. 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..</p>	<p><b>Special Zone or Reviews</b></p> <input type="checkbox"/> Shoreland <i>N/A</i> <i>Small corner of lot @ 250'</i> <input type="checkbox"/> Wetland <i>Structure well beyond it.</i> <input type="checkbox"/> Flood Zone <i>panel 9 - Zone C</i> <input type="checkbox"/> Subdivision <input checked="" type="checkbox"/> Site Plan <i>2008-0145</i>  Maj <input type="checkbox"/> Minor <input checked="" type="checkbox"/> MM <input type="checkbox"/> <i>OK w/ conditions</i> Date: <i>11/7/09 ABU</i>	<p><b>Zoning Appeal</b></p> <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: _____	<p><b>Historic Preservation</b></p> <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 <i>ABU</i> Date: _____
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**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

## BUILDING PERMIT INSPECTION PROCEDURES

Please call 874-8703 or 874-8693 (ONLY)

to schedule your inspections as agreed upon

Permits expire in 6 months, if the project is not started or ceases for 6 months.

The Owner or their designee is required to notify the inspections office for the following inspections and provide adequate notice. Notice must be called in 48-72 hours in advance in order to schedule an inspection:

By initializing at each inspection time, you are agreeing that you understand the inspection procedure and additional fees from a "Stop Work Order" and "Stop Work Order Release" will be incurred if the procedure is not followed as stated below.

A Pre-construction Meeting will take place upon receipt of your building permit.

  X   Footing/Building Location Inspection: Prior to pouring concrete or setting precast piers

  X   Framing/Rough Plumbing/Electrical: Prior to Any Insulating or drywalling

  X   Final/Certificate of Occupancy: Prior to any occupancy of the structure or use.

NOTE: There is a \$75.00 fee per inspection at this point.

Certificate of Occupancy is not required for certain projects. Your inspector can advise you if your project requires a Certificate of Occupancy. All projects DO require a final inspection.

If any of the inspections do not occur, the project cannot go on to the next phase, REGARDLESS OF THE NOTICE OR CIRCUMSTANCES.

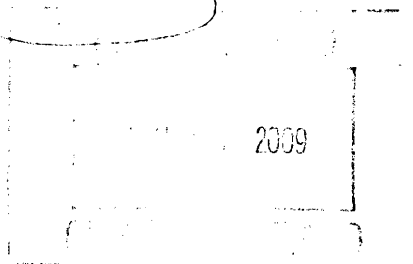
**CERIFICATE OF OCCUPANICES MUST BE ISSUED AND PAID FOR, BEFORE THE SPACE MAY BE OCCUPIED.**

  
\_\_\_\_\_  
Signature of Applicant/Designee

  1/7/09    
Date

  
\_\_\_\_\_  
Signature of Inspections Official

  1/7/09    
Date



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

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

Permit No: 08-1152	Date Applied For: 09/10/2008	CBL: 092 G022001
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Location of Construction: 67 BROOK LN ( Knickerbocker Rd.	Owner Name: LEONG PETER Y & CHRISTINE	Owner Address: 683 ISLAND AVE	Phone: 207-766-5174
Business Name:	Contractor Name:	Contractor Address:	Phone:
Lessee/Buyer's Name	Phone:	Permit Type: Additions - Dwellings	

Proposed Use: Vacant Land - Construct 24'x34' boathouse with Gravel Driveway	Proposed Project Description: Construct 24'x34' boathouse with Gravel Driveway
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**Dept:** Zoning      **Status:** Approved with Conditions      **Reviewer:** Ann Machado      **Approval Date:** 01/07/2009

**Note:** **Ok to Issue:**

- 1) With the issuance of this permit and the certificate of occupancy the use of this property will be a boathouse. Any change of use shall require a separate permit application for review and approval.
- 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:** Tammy Munson      **Approval Date:** 01/07/2009

**Note:** **Ok to Issue:**

- 1) Permit approved based on the plans submitted and reviewed w/owner/contractor, with additional information as agreed on and as noted on plans.
- 2) As discussed, the frost protection must be installed a minimum 4'-0" below grade with a minimum 8"x 16" footing or the same must be drilled and pinned installed directly on ledge.
- 3) The anchor bolts must be a minimum of 1/2" diameter.
- 4) Separate permits are required for any electrical, plumbing, HVAC or exhaust systems. Separate plans may need to be submitted for approval as a part of this process.

**Dept:** Public Services      **Status:** Pending      **Reviewer:**      **Approval Date:**

**Note:** **Ok to Issue:**

**Dept:** Zoning      **Status:** Pending      **Reviewer:**      **Approval Date:**

**Note:** **Ok to Issue:**

**Dept:** Parks      **Status:** Pending      **Reviewer:**      **Approval Date:**

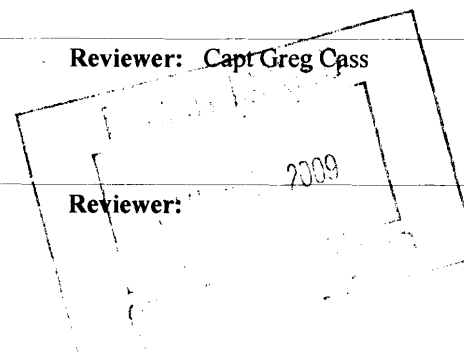
**Note:** **Ok to Issue:**

**Dept:** Fire      **Status:** Not Applicable      **Reviewer:** Capt Greg Cass      **Approval Date:**

**Note:** **Ok to Issue:**

**Dept:** DRC      **Status:** Pending      **Reviewer:**      **Approval Date:**

**Note:** **Ok to Issue:**



<b>Location of Construction:</b> 67 BROOK LN ( Knickerbocker Rd.	<b>Owner Name:</b> LEONG PETER Y & CHRISTINE	<b>Owner Address:</b> 683 ISLAND AVE	<b>Phone:</b> 207-766-5174
<b>Business Name:</b>	<b>Contractor Name:</b>	<b>Contractor Address:</b>	<b>Phone:</b>
<b>Lessee/Buyer's Name</b>	<b>Phone:</b>	<b>Permit Type:</b> Additions - Dwellings	

<b>Dept:</b> Planning	<b>Status:</b> Approved with Conditions	<b>Reviewer:</b>	<b>Approval Date:</b>
<b>Note:</b>			<b>Ok to Issue:</b> <input type="checkbox"/>

<b>Comments:</b> 9/11/2008-lmd: Phoned Peter to request 11x17 site plans.LM 9/12/2008-amachado: Left vcm for Peter Leong. Needs to do a minor siteplan application, If reduces building to 500 sf or less than site plan exemption. 10/20/2008-amachado: Have not received siteplan approval, so I can't sign off. Meets zoning requirements, so I moved the permit to plan review. 10/27/2008-tmm: HOLD - need building permit info - faxed list to owner /tmm
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67 Brook

766-5174

ONE AND TWO FAMILY	PLAN REVIEW	CHECKLIST
Soil type/Presumptive Load Value (Table R401.4.1)		
Component	Submitted Plan	Findings Revisions Date
<b>STRUCTURAL</b>		
① Footing Dimensions/Depth (Table R403.1 & R403.1(1), (Section R403.1 & R403.1.4.1)	not shown	condition
Foundation Drainage, Fabric, Damp proofing (Section R405 & R406)	> N/A	
Ventilation/Access (Section R408.1 & R408.3) Crawls Space ONLY		
② Anchor Bolts/Straps, spacing (Section R403.1.6)	not shown	condition 1/2" diam.
Lally Column Type (Section R407)		
Girder & Header Spans (Table R 502.5(2))		
③ Built-Up Wood Center Girder Dimension/Type	not shown	3-2x10's
Sill/Band Joist Type & Dimensions		
First Floor Joist Species Dimensions and Spacing (Table R502.3.1(1) & Table R502.3.1(2))	slab	
Second Floor Joist Species Dimensions and Spacing (Table R502.3.1(1) & Table R502.3.1(2))	2x8-16" OC - 12' span	-OK
④ Attic or additional Floor Joist Species Dimensions and Spacing (Table R802.4(1) and R802.4(2))	Need 2x8's - 16" OC	OK changed

Pitch, Span, Spacing & Dimension (Table R802.5.1(1) - R 802.5.1( 8)) Roof Rafter; Framing & Connections (Section R802.3 & R802.3.1) Sheathing; Floor, Wall and roof (Table R503.2.1.1(1))	2x8's - OK	
Fastener Schedule (Table R602.3(1) & (2))		
<b>Private Garage</b> (Section R309) Living Space ? (Above or beside)  Fire separation (Section R309.2)  Opening Protection (Section R309.1)  Emergency Escape and Rescue Openings (Section R310)  Roof Covering (Chapter 9)  Safety Glazing (Section R308)  Attic Access (Section R807)  Chimney Clearances/Fire Blocking (Chap. 10)	N/A	
Header Schedule (Section 502.5(1) & (2))	Not shown	
Energy Efficiency (N1101.2.1) R-Factors of Walls, Floors, Ceilings, Building Envelope, U-Factor Fenestration	N/A	

Type of Heating System			
<b>Means of Egress</b> (Sec R311 & R312)			
Basement			
6 Number of Stairways	<i>Need framing details - Birds eye view of opening</i>		
Interior			
Exterior			
Treads and Risers (Section R311.5.3)			
Width (Section R311.5.1)		<i>OK see detail</i>	
Headroom (Section R311.5.2)			
Guardrails and Handrails (Section R312 & R311.5.6 - R311.5.6.3)			
Smoke Detectors (Section R313) Location and type/Interconnected	N/A		
Draftstopping (Section R502.12) and Fireblocking (Section (R602.8)			
Dwelling Unit Separation (Section R317) and IBC - 2003 (Section 1207)			
Deck Construction (Section R502.2.1)			

Need guard in front of door? Shown



FAX



To:

Fax Number:

766-5174

From:

Tammy Munson

Fax Number:

874-8716

Date:

10/27/08

Regarding:

Total Number Of Pages Including Cover:

Phone Number For Follow-Up:

Comments:

Please call w/questions -  
874-8706

City Of Portland, Maine  
Inspections Division Services  
389 Congress St Room 315 Portland Me 04101-3509  
Phone: (207) 874-8703 or (207)874-8693  
Fax: (207) 874-8716  
<http://www.portlandmaine.gov/>



# General Building Permit Application

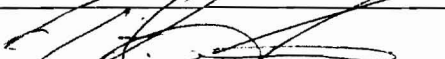
If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

Location/Address of Construction: <u>Knickerbocker Rd, Peaks Island</u>		
Total Square Footage of Proposed Structure/Area		Square Footage of Lot <u>1 Acre</u>
Tax Assessor's Chart, Block & Lot Chart# <u>926</u> Block# <u>22-24</u> Lot#	Applicant <b>'must be owner, Lessee or Buyer'</b> Name <u>Peter Heong</u> Address <u>683 Island Ave</u> City, State & Zip <u>Peaks I, ME 04108</u>	Telephone: <u>766-5174</u> <u>891-6297</u>
<del>092 F 014</del> Lessee/DBA (If Applicable) <u>092 G 0224034</u>	Owner (if different from Applicant) Name <u>same</u> Address City, State & Zip	Cost Of Work: \$ <u>10,000.00</u> C of O Fee: \$ <u>Fee</u> Total Fee: \$ <u>100.00</u>
Current legal use (i.e. single family) <u>IRI</u> <u>VanDano Sand</u> If vacant, what was the previous use? Proposed Specific use: Is property part of a subdivision? <u>NO</u> If yes, please name Project description: <u>Boathouse w/ storage for gear</u>		
SEP 10		
Contractor's name: <u>Self</u>		
Address:		
City, State & Zip		Telephone:
Who should we contact when the permit is ready: <u>Peter Heong</u>		Telephone: <u>766-5174</u>
Mailing address: <u>683 Island Ave, Peaks Is, ME 04108</u>		<u>891-6297</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.

Signature:  Date: 9/10/08

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

Applicant: Peter Leong

Date: 9/11/08

Address: 67 Brook Lane, Pecks Island

C-B-L: 92-6-022

permit # 08-1152

CHECK-LIST AGAINST ZONING ORDINANCE

Date - New

Zone Location - FR-1

Interior or corner lot -

Proposed Use/Work - build 24x34' 2 story bathroom.

Sewage Disposal -

Lot Street Frontage - 100' min. - 217.39' scaled

Front Yard - 30' min. - 112' scaled

Rear Yard - 30' min. - 36' scaled

Side Yard - 20' min. - 30.5' scaled

Projections -

Width of Lot - 100' min. - 198' scaled

Height - 35' max. - 18.5'

Lot Area - 40,000  $\Phi$  ~~40,000~~ - 40,103  $\Phi$

Lot Coverage Impervious Surface - 20% = 8020.6  $\Phi$

24x34 = 812 <sup>ok</sup>

Area per Family -

Off-street Parking -

Loading Bays -

Site Plan -

Shoreland Zoning/ Stream Protection - small corner <sup>(Northeast)</sup> of lot is in 250' shoreland zone.

Flood Plains - panel 9 - zone C

512 340422 1.06.20

THE FIDUCIARY GROUP

44001-0016 17919

132  
85  
217



KNICKERBOCKER ROAD

N 51°02'28" E  
217.40'

part 2?

REMAINING LAND OF PANOS

TM 92-BLOCK 6 - LOT 24

S 37°47'25" E  
127.07'

25.00'  
S 51°02'28" W

REMAINING LAND OF PANOS

AREA OF PROPOSED LOT  
40,103 SF.

SEPTIC AREA  
8-15-86

PROP  
LOCAL  
PROV  
ONC

PORTION OF  
TM 92-BLOCK 6 - LOT 29

S 08°42'25" E  
99.46'

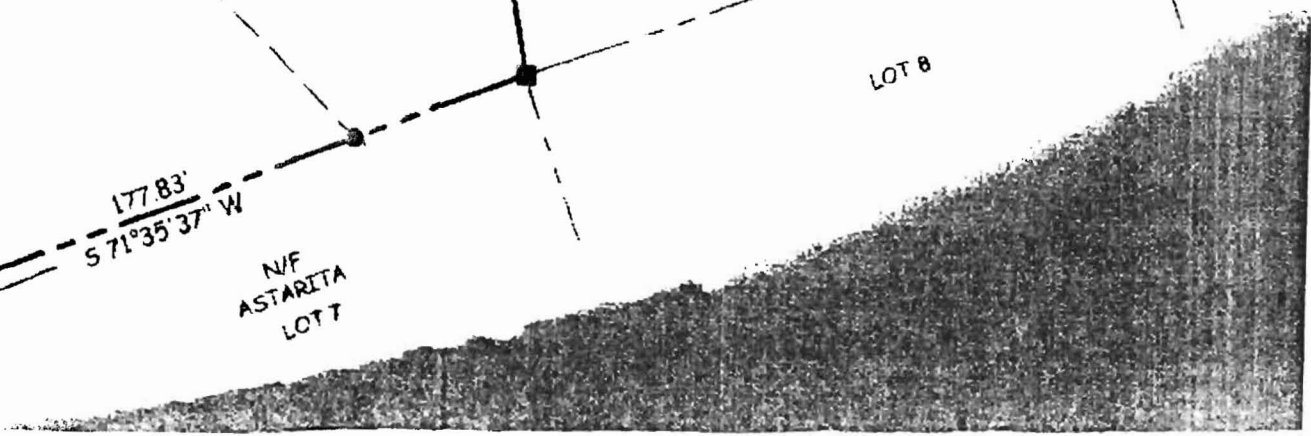
TM 92-BLOCK 6 - LOT 22

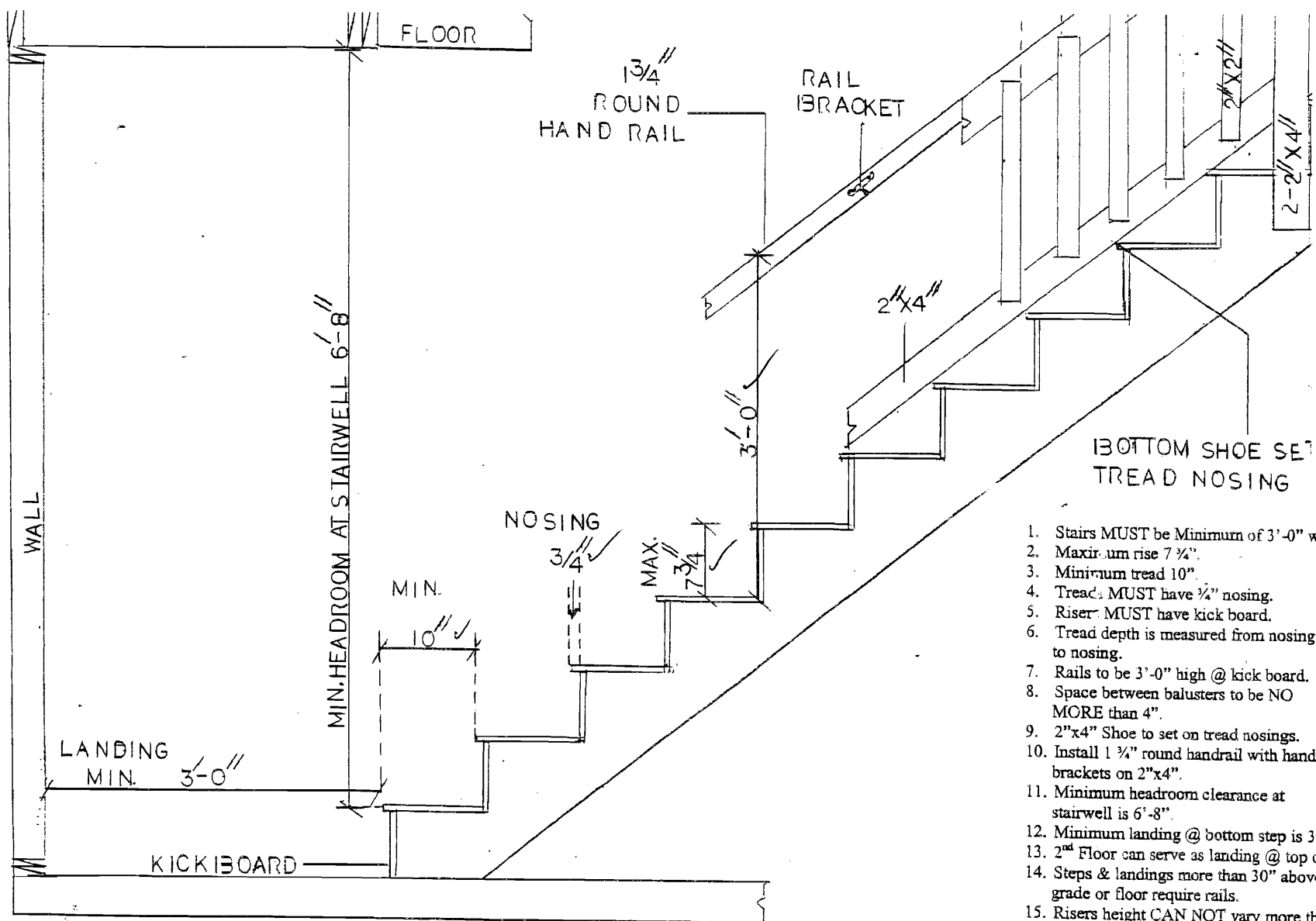
LOT 8

N 28°51'24" W  
152.90'

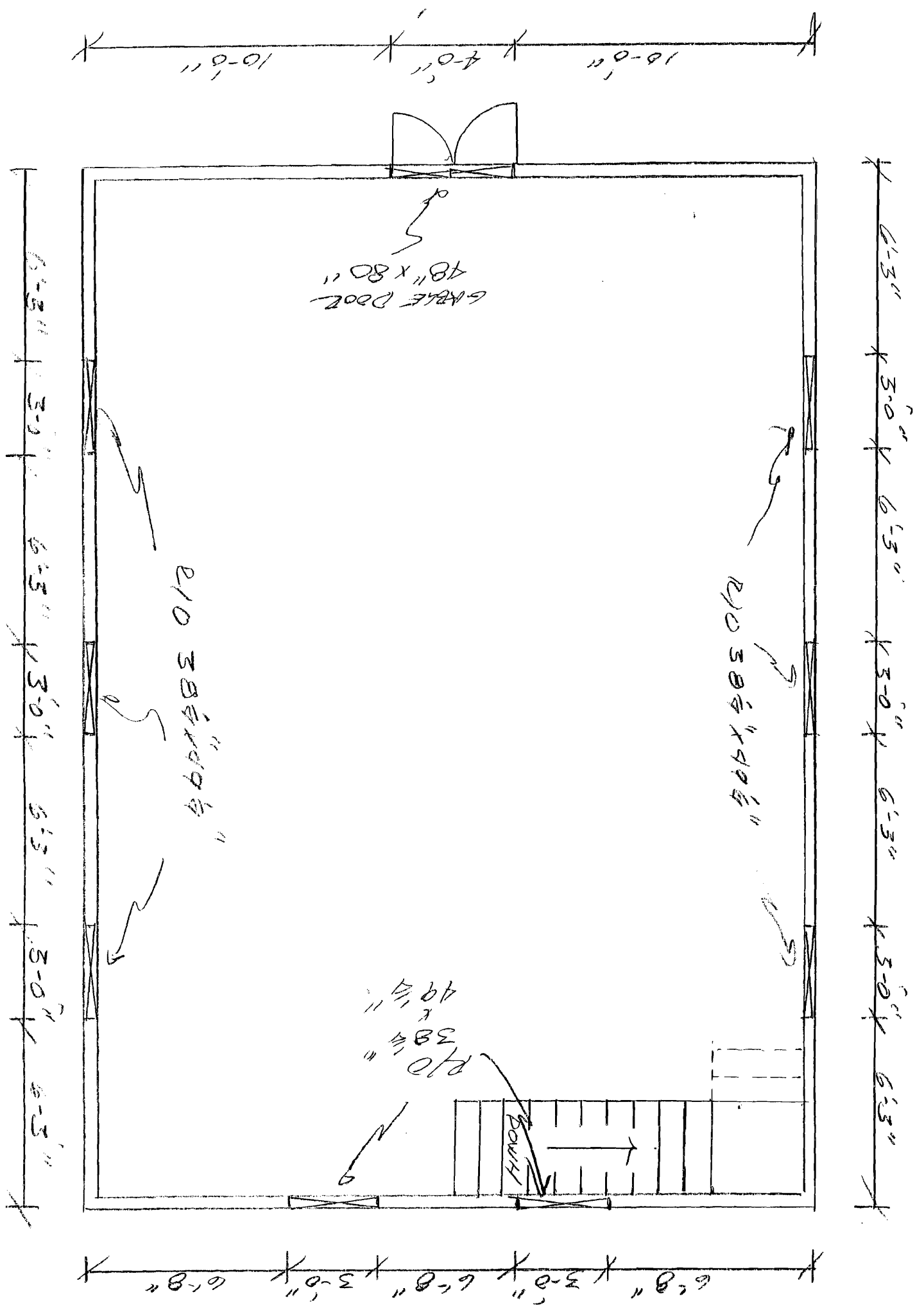
177.83'  
S 71°35'37" W

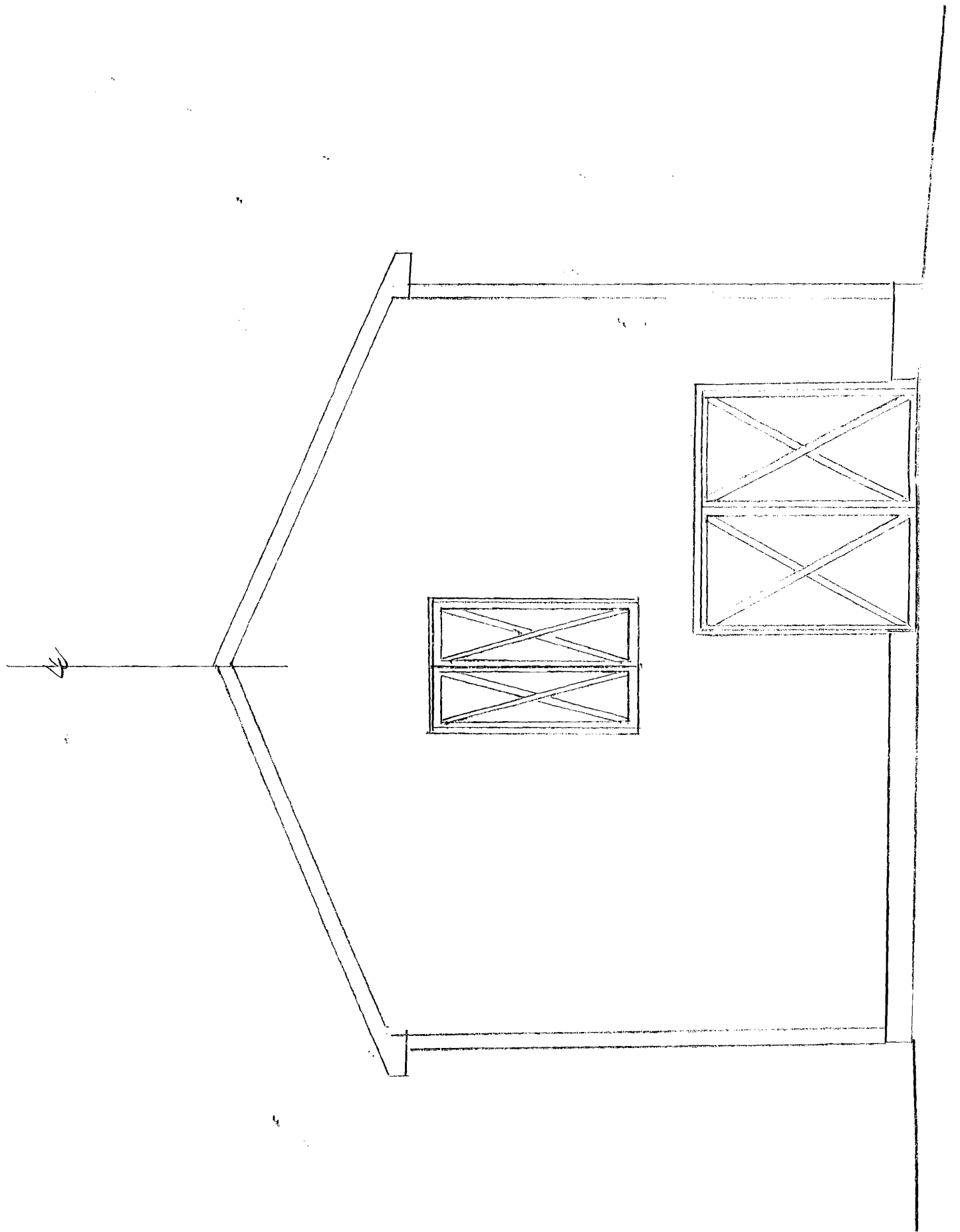
N/F  
ASTARITA  
LOT 7

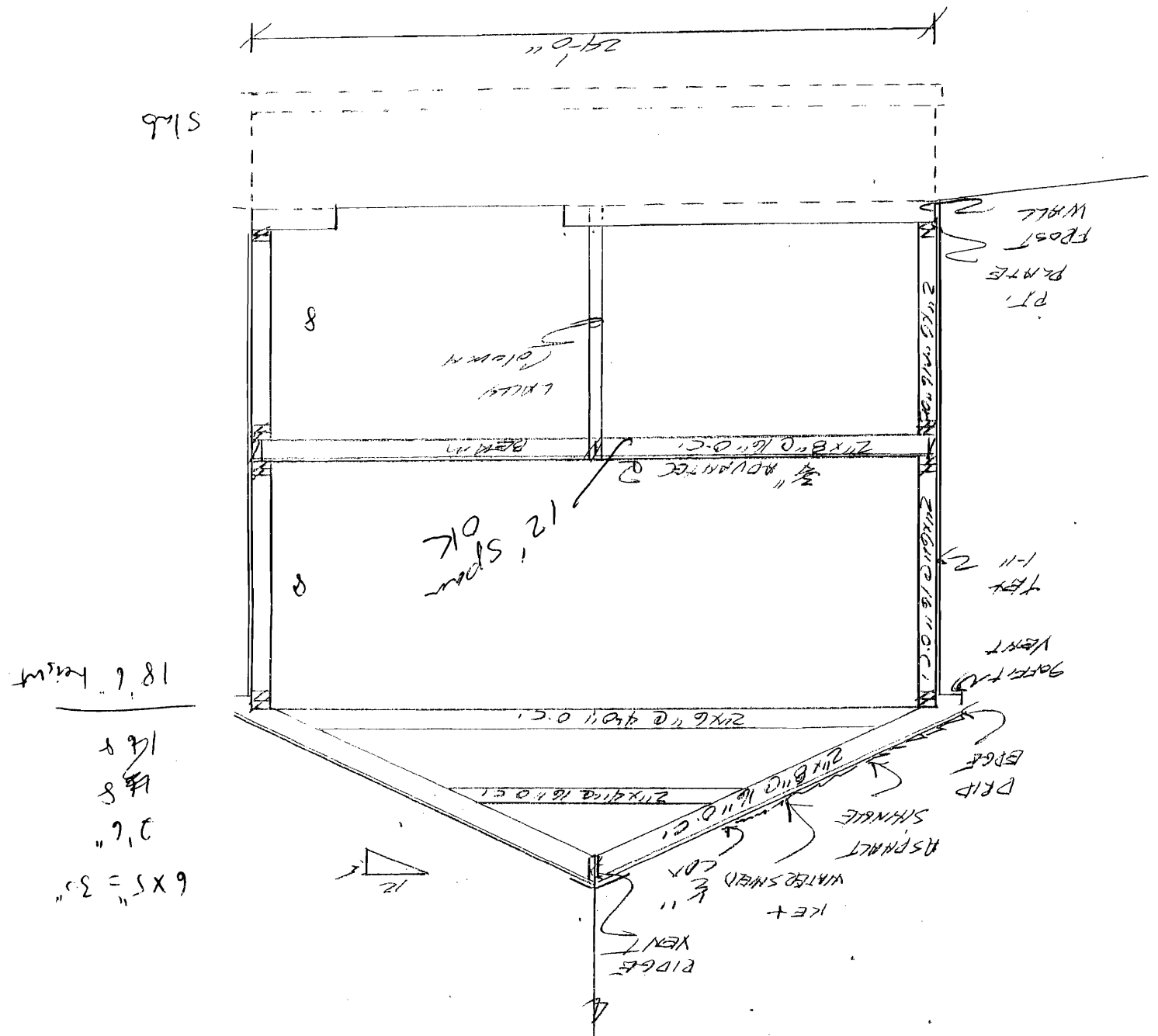




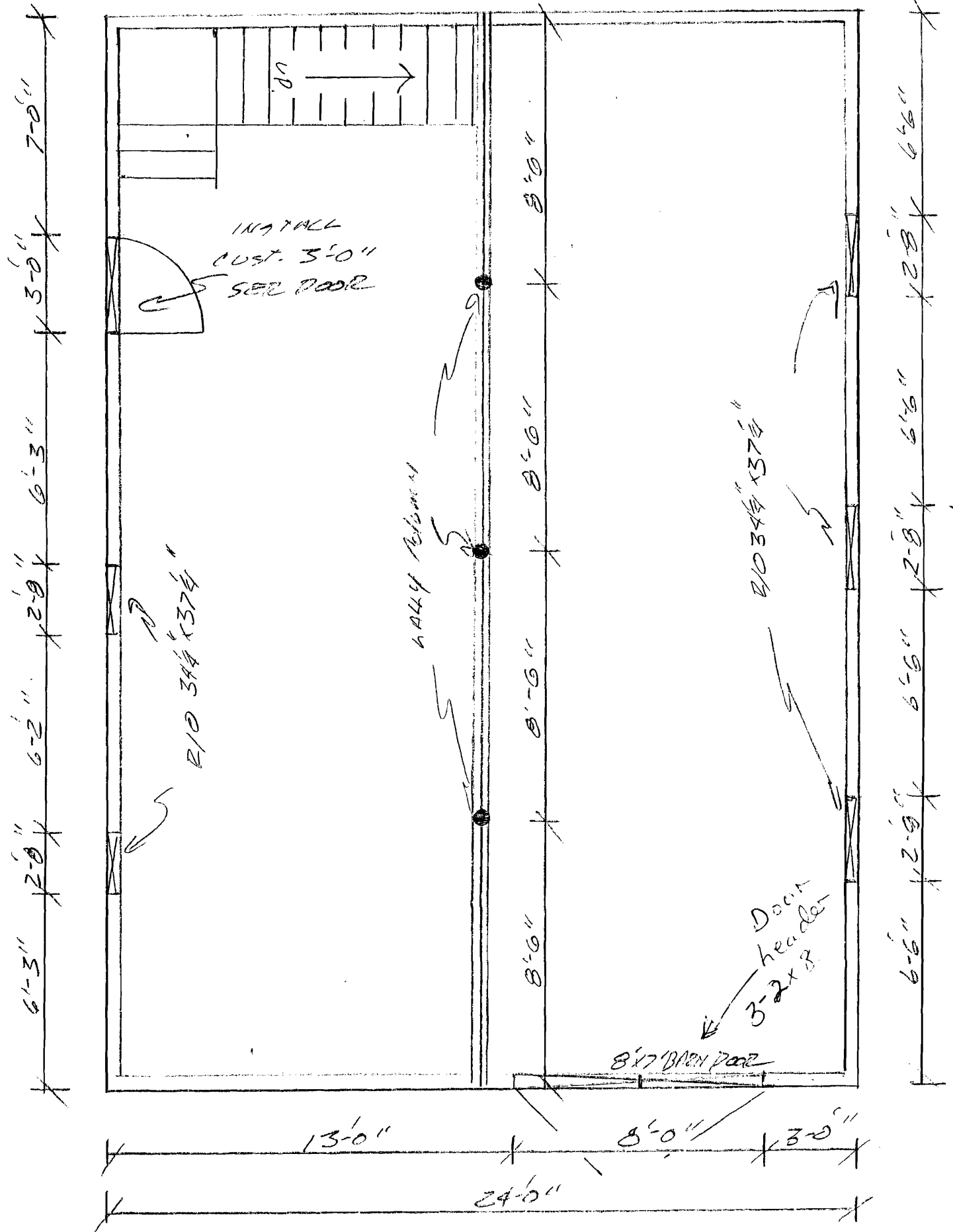
1. Stairs MUST be Minimum of 3'-0" wide.
2. Maximum rise 7 3/4".
3. Minimum tread 10".
4. Tread MUST have 3/4" nosing.
5. Riser MUST have kick board.
6. Tread depth is measured from nosing to nosing.
7. Rails to be 3'-0" high @ kick board.
8. Space between balusters to be NO MORE than 4".
9. 2"x4" Shoe to set on tread nosings.
10. Install 1 3/4" round handrail with handrail brackets on 2"x4".
11. Minimum headroom clearance at stairwell is 6'-8".
12. Minimum landing @ bottom step is 3'-0".
13. 2<sup>nd</sup> Floor can serve as landing @ top of stairs.
14. Steps & landings more than 30" above grade or floor require rails.
15. Risers height CAN NOT vary more than 3/8".
16. Tread depth CAN NOT vary more than 3/8".











\*\*\*\*\*  
\*\*\* MEMORY CLEAR REPORT \*\*\*  
\*\*\*\*\*

## MEMORY FILES DELETED

TX/RX NO	MODE	CONNECTION TEL/ID	PGS.	SET TIME	ST. TIME
3726	TRANSMIT	7568858	1	01/06 21:59	

U.S. Span Tables for U.S. Lumber Species

**Table 9** SNOW REGION, LIGHT ROOF COVERING, DRYWALL, NO ATTIC SPACE, 40 PSF LIVE, 10 PSF DEAD

**Rafters**

Maximum Allowable Horizontal Span (ft.-in.)

Species Group	Spacing (in)	2x6				2x8				2x10				2x12			
		Str.	No.1	No.2	No.3	Str.	No.1	No.2	No.3	Str.	No.1	No.2	No.3	Str.	No.1	No.2	No.3
D. Fir-L	12	14-4	13-9	13-6	10-8	18-10	18-2	17-8	13-6	24-1	22-9	21-7	16-6	29-3	26-5	25-1	19-2
	16	13-0	12-6	12-1	9-3	17-2	16-2	15-4	11-8	21-10	19-9	18-9	14-3	26-7	22-10	21-6	16-7
	19.2	12-3	11-9	11-0	8-5	16-1	14-9	14-0	10-0	20-7	18-0	17-1	13-1	25-0	20-11	19-10	15-2
	24	11-4	10-5	9-10	7-7	15-0	13-2	12-6	9-7	19-1	16-1	15-3	11-8	22-10	18-8	17-9	13-6
Hem-Fir	12	13-6	13-3	12-7	10-5	17-10	17-5	16-7	13-2	22-9	22-3	21-0	16-1	27-5	26-1	24-4	18-8
	16	12-3	12-0	11-5	9-0	16-2	15-10	14-11	11-5	20-6	19-6	18-2	13-11	25-1	22-7	21-1	16-2
	19.2	11-7	11-4	10-9	8-3	15-3	14-7	13-7	10-5	19-5	17-9	16-7	12-9	23-7	20-7	19-3	14-9
	24	10-3	10-3	9-7	7-4	14-2	13-0	12-2	9-4	18-0	15-11	14-10	11-5	21-11	19-5	17-3	13-2
S. Pine	12	14-1	13-9	13-6	11-2	18-6	18-2	17-10	14-3	23-6	23-2	22-3	16-10	29-9	26-2	26-1	20-0
	16	12-9	12-6	12-3	9-5	16-10	16-6	16-2	12-4	21-6	21-1	19-3	14-7	26-1	25-7	22-7	17-4
	19.2	12-0	11-9	11-5	8-10	15-10	15-6	14-9	11-3	20-2	19-7	17-7	13-4	24-7	23-4	20-7	15-10
	24	11-2	10-11	10-2	7-11	14-8	14-5	13-2	10-1	18-9	17-6	15-9	11-11	22-10	20-11	18-5	14-2

132

**Table 10** SNOW REGION, LIGHT ROOF COVERING, DRYWALL, NO ATTIC SPACE, 40 PSF LIVE, 10 PSF DEAD

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Species Group	Spacing (in)	2x6				2x8				2x10				2x12			
		Str.	No.1	No.2	No.3	Str.	No.1	No.2	No.3	Str.	No.1	No.2	No.3	Str.	No.1	No.2	No.3
D. Fir-L	12	13-0	12-6	12-3	9-5	17-2	16-6	15-10	12-1	21-10	20-4	19-4	14-9	26-7	23-7	22-5	17-1
	16	11-10	11-5	10-10	8-3	15-7	14-5	13-8	10-6	19-10	17-8	16-9	12-9	24-2	20-5	19-5	14-10
	19.2	11-1	10-5	9-10	7-7	14-6	13-2	12-6	9-7	18-8	16-1	15-3	11-8	22-9	18-6	17-9	13-6
	24	10-4	9-4	8-10	6-9	13-7	11-9	11-2	8-7	17-4	14-5	13-6	10-5	20-5	16-6	15-10	12-1
Hem-Fir	12	12-3	12-0	11-5	9-4	16-2	15-10	15-1	11-9	20-8	20-1	18-9	14-5	25-1	23-4	21-9	16-3
	16	11-2	10-11	10-5	8-1	14-6	14-3	13-1	10-3	18-9	17-5	16-3	12-6	22-10	20-2	18-10	14-6
	19.2	10-5	10-3	9-7	7-4	13-10	13-0	12-2	9-4	17-8	15-11	14-10	11-8	21-5	18-5	17-3	13-2
	24	9-9	9-2	8-7	6-7	12-10	11-8	10-10	8-4	16-5	14-3	13-3	10-2	19-9	16-6	15-5	11-10
S. Pine	12	12-9	12-6	12-3	10-0	15-10	16-6	16-2	12-9	21-6	21-1	19-11	15-1	26-1	25-7	23-4	17-11
	16	11-7	11-5	11-2	8-8	15-3	15-0	14-5	11-0	19-6	19-2	17-2	13-0	23-9	22-10	20-2	15-6
	19.2	10-11	10-8	10-2	7-11	14-5	14-1	13-2	10-1	18-4	17-6	15-9	11-11	22-4	20-11	18-5	14-2
	24	10-2	9-11	9-2	7-1	13-4	13-1	11-9	9-0	17-0	15-6	14-1	10-6	20-9	18-8	16-6	12-8

133

2x8 @ 16" OC for 12'-0" span

The availability of sizes and grades should be confirmed before specifying.

U.S. Span Tables for U.S. Lumber Species

**Table 1**

**Floor Joists**

Maximum Allowable Span (ft.-in.)

Species Group	Spacing (in.)	2x6				2x8				2x10				2x12			
		No.1	No.2	No.3	No.4	No.1	No.2	No.3	No.4	No.1	No.2	No.3	No.4	No.1	No.2	No.3	No.4
D. Fir-L	12	12-6	12-0	11-10	9-11	16-6	15-10	15-7	12-7	21-0	20-3	19-10	15-5	25-7	24-8	23-4	17-10
	16	11-4	10-11	10-9	6-7	15-0	14-5	14-2	10-11	19-1	18-5	17-5	13-4	23-3	21-4	20-3	15-5
	19.2	10-6	10-4	10-1	7-10	14-1	13-7	13-0	10-0	18-0	16-9	15-11	12-2	21-10	19-6	18-6	14-1
	24	9-11	9-7	8-3	7-0	13-1	12-4	11-6	8-11	16-8	15-0	14-3	10-11	20-3	17-5	16-6	12-7
Hem-Fir	12	11-10	11-7	11-0	9-8	15-7	15-3	14-6	12-4	19-10	19-5	18-6	15-0	24-2	23-7	22-6	17-5
	16	10-9	10-6	10-0	8-5	14-2	13-10	13-2	10-8	18-0	17-8	16-10	13-0	21-11	21-1	19-3	15-1
	19.2	10-1	9-10	9-5	7-6	13-4	13-0	12-5	9-9	17-0	16-7	15-6	11-10	20-3	19-3	17-11	13-9
	24	9-4	8-2	6-9	6-10	12-4	12-1	11-4	8-8	15-9	14-10	13-10	10-7	19-2	17-2	16-1	12-4
S. Pine	12	12-3	12-0	11-10	10-5	16-2	15-10	15-7	13-3	20-6	20-3	19-10	15-9	25-1	24-8	24-2	18-8
	16	11-2	10-11	10-9	9-0	14-8	14-5	14-2	11-8	18-9	18-5	18-0	13-7	22-10	22-5	21-1	16-2
	19.2	10-6	10-4	10-1	8-3	13-10	13-7	13-4	10-6	17-8	17-4	16-3	12-5	21-6	21-1	19-3	14-9
	24	9-9	9-7	9-4	7-4	12-10	12-7	12-4	9-5	16-5	16-1	14-6	11-1	19-11	19-6	17-2	13-2

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The U.S. Span Tables for Major Lumber Species

**Table 2**

**Floor Joists**

Maximum Allowable Span (ft.-in.) =  $4/360$

Species Group	Spacing (in.)	2x6				2x8				2x10				2x12			
		No.1	No.2	No.3	No.4	No.1	No.2	No.3	No.4	No.1	No.2	No.3	No.4	No.1	No.2	No.3	No.4
D. Fir-L	12	11-4	10-11	10-9	8-11	15-0	14-5	14-2	11-3	19-1	18-5	18-0	13-9	23-3	22-0	20-11	16-0
	16	10-4	9-11	9-9	7-8	13-7	13-1	12-9	9-9	17-4	16-5	15-7	11-11	21-1	19-1	18-1	13-10
	19.2	9-6	9-4	9-2	7-0	12-10	12-4	11-6	8-11	16-4	15-0	14-3	10-11	19-10	17-5	16-6	12-7
	24	9-0	8-8	8-3	6-3	11-11	11-0	10-5	8-0	15-2	13-5	12-9	9-9	18-5	15-7	14-9	11-3
Hem-Fir	12	10-9	10-6	10-0	8-8	14-2	13-10	13-2	11-0	18-0	17-8	16-10	13-0	21-11	21-6	20-4	15-7
	16	9-9	9-6	9-1	7-6	12-10	12-7	12-0	9-6	16-5	16-0	15-2	11-8	19-11	18-10	17-7	13-6
	19.2	9-2	9-0	8-7	6-10	12-1	11-10	11-3	8-6	15-5	14-10	13-10	10-7	18-9	17-2	16-1	12-4
	24	8-6	8-4	7-11	6-2	11-3	10-10	10-2	7-9	14-4	13-3	12-5	9-6	17-5	15-5	14-4	11-0
S. Pine	12	11-2	10-11	10-9	9-4	14-8	14-5	14-2	11-11	18-9	18-5	18-0	14-0	22-10	22-5	21-9	16-8
	16	10-2	9-11	9-9	8-1	13-4	13-1	12-10	10-3	17-0	16-9	16-1	12-2	20-9	20-4	18-10	14-6
	19.2	9-6	9-4	9-2	7-4	12-7	12-4	12-1	9-5	16-0	15-6	14-6	11-1	19-6	19-2	17-2	13-2
	24	8-10	8-8	8-5	5-7	11-8	11-5	11-0	8-5	14-11	14-7	13-1	9-11	16-1	17-5	15-5	11-10

123

2x8 @ 16"  $\frac{1}{8}$  For 12'-0" span  
or 2x10 option

The availability of sizes and grades should be confirmed before specifying.

U.S. Span Tables for U.S. Lumber Species

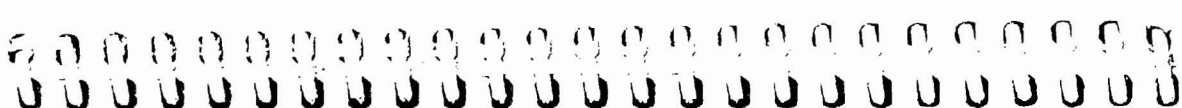
**Table A**

**Floor Joists**

Maximum Allowable Span (ft.-in.)

Species Group	Spacing (in.)	2x6				2x8				2x10				2x12			
		Str.	No.1	No.2	No.3	Str.	No.1	No.2	No.3	Str.	No.1	No.2	No.3	Str.	No.1	No.2	No.3
D. Fir-L	12	9-11	9-7	9-3	7-0	13-1	12-4	11-8	8-11	16-8	15-0	14-3	10-11	20-3	17-5	16-6	12-7
	16	9-0	8-5	8-0	6-1	11-11	10-8	10-1	7-9	15-2	13-0	12-4	9-5	18-5	15-1	14-4	10-11
	19.2	8-6	7-8	7-3	5-7	11-2	9-8	9-3	7-1	14-3	11-10	11-3	8-7	16-10	13-9	13-1	10-0
	24	7-10	6-10	6-6	5-0	10-5	8-8	8-3	6-4	12-0	10-7	10-1	7-8	15-1	12-4	11-6	8-11
Hem-Fir	12	9-4	9-2	6-9	6-10	12-4	12-1	11-4	8-6	15-9	14-10	13-10	10-7	19-2	17-2	16-1	12-4
	16	8-6	8-4	7-9	5-11	11-3	10-6	9-10	7-6	14-4	12-10	12-0	9-2	17-5	14-11	13-11	10-8
	19.2	8-0	7-7	7-1	5-5	10-7	9-7	9-0	6-10	13-6	11-9	10-11	8-5	16-3	13-7	12-6	9-6
	24	7-5	6-6	6-4	4-10	9-10	8-7	8-0	6-2	12-6	10-6	9-6	7-6	14-7	12-2	11-4	8-6
S. Pine	12	9-9	9-7	9-4	7-4	12-10	12-7	12-4	9-6	16-5	15-1	14-5	11-1	19-11	19-6	17-2	13-2
	16	8-10	8-2	8-3	6-5	11-8	11-5	10-8	8-2	14-11	14-2	12-8	9-7	18-1	16-10	14-11	11-5
	19.2	8-4	8-2	7-6	5-10	11-0	10-8	9-5	7-5	14-0	12-11	11-7	8-9	17-0	15-5	13-7	10-5
	24	7-9	7-7	6-9	5-3	10-2	9-9	8-8	6-8	13-0	11-7	10-4	7-10	15-10	13-9	12-2	9-4

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The U.S. Span Table for Major Lumber Species

**Table B**

**Ceiling Joists**

Maximum Allowable Span (ft.-in.)

Species Group	Spacing (in.)	2x4				2x6				2x8				2x10			
		Str.	No.1	No.2	No.3	Str.	No.1	No.2	No.3	Str.	No.1	No.2	No.3	Str.	No.1	No.2	No.3
D. Fir-L	12	13-2	12-8	12-5	11-1	20-8	19-11	19-6	16-3	27-2	26-2	25-6	20-7	34-8	33-5	32-9	25-2
	16	11-11	11-6	11-3	9-7	18-9	18-1	17-6	14-1	24-8	23-10	23-4	17-10	31-6	30-6	28-6	21-9
	19.2	11-3	10-10	10-7	8-9	17-8	17-0	16-6	12-10	23-3	22-5	21-4	16-3	29-3	27-5	26-0	19-10
	24	10-6	10-0	9-10	7-10	16-4	15-9	15-0	11-6	21-7	20-1	19-1	14-7	27-6	24-6	23-3	17-9
Hem-Fir	12	12-5	12-2	11-7	10-10	19-6	19-1	18-2	15-10	25-8	25-2	24-0	20-1	32-9	32-1	30-7	24-6
	16	11-3	11-0	10-6	9-5	17-8	17-4	16-6	13-9	23-4	22-10	21-9	17-5	29-9	29-3	27-8	21-3
	19.2	10-7	10-4	9-11	8-7	16-8	16-4	15-7	12-6	21-11	21-6	20-6	15-10	28-0	27-1	25-3	19-5
	24	9-10	9-3	9-2	7-8	15-6	15-2	14-5	11-2	20-6	19-10	18-5	14-2	26-0	24-3	22-7	17-4
S. Pine	12	12-11	12-6	12-5	11-6	20-3	19-11	19-6	17-0	26-9	26-2	25-8	21-6	34-1	33-5	32-9	25-7
	16	11-9	11-6	11-3	10-0	18-5	18-1	17-8	14-9	24-3	23-10	23-4	18-9	31-0	30-5	29-4	22-2
	19.2	11-0	10-10	10-7	9-1	17-4	17-0	16-8	13-6	22-10	22-5	21-11	17-2	29-2	28-7	26-10	20-3
	24	10-3	10-0	9-10	8-2	16-1	15-9	15-6	12-0	21-2	20-10	20-1	16-4	27-1	26-6	23-11	18-1

127

2x10 @ 16" c/c for 24'-0" span

The availability of sizes and grades should be confirmed before specifying.





3 - 2x12's

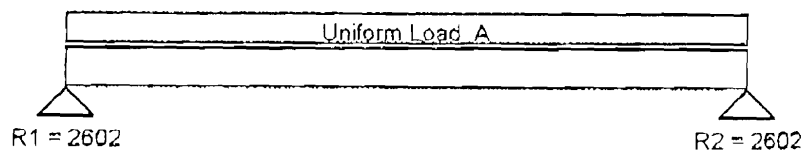
Boat House - center beam

Date: 1/06/09 BeamChek 2.2

<u>Choice</u>	(3) 2x 12 SPF #2		BASE Fb = 875	ADJ Fb = 875	
<u>Conditions</u>	91 NDS				
	Min Bearing Area	R1= 6.1 in <sup>2</sup> R2= 6.1 in <sup>2</sup>	DL Defl	0.02 in	
<u>Data</u>	Beam Span	8.5 ft	Reaction 1	2602 # Reaction 1 LL 2040 #	
	Beam Wt per ft	12.3 #	Reaction 2	2602 # Reaction 2 LL 2040 #	
	Beam Weight	105 #	Maximum V	2602 #	
	Max Moment	5530 #	Max V (Reduced)	2028 #	
	TL Max Defl	L / 240	TL Actual Defl	L / >1000	
	LL Max Defl	L / 360	LL Actual Defl	L / >1000	
<u>Attributes</u>	Section (in <sup>2</sup> )	Shear (in <sup>2</sup> )	TL Defl (in)	LL Defl	
Actual	94.92	50.63	0.10	0.08	
Critical	75.84	43.46	0.43	0.28	
Status	OK	OK	OK	OK	
Ratio	80%	86%	23%	27%	
<u>Values</u>		Fb (psi)	Fv (psi)	E (psi x mil)	Fc <sub>⊥</sub> (psi)
	Base Values	875	70	1.4	425
	Base Adjusted	875	70	1.4	425
<u>Adjustments</u>	CF Size Factor	1.000			
	Cd Duration	1.00	1.00		
	Cr Repetitive				
	Ch Shear Stress				
	Cm Wet Use				

BeamChek has automatically added the beam self-weight into the calculations.

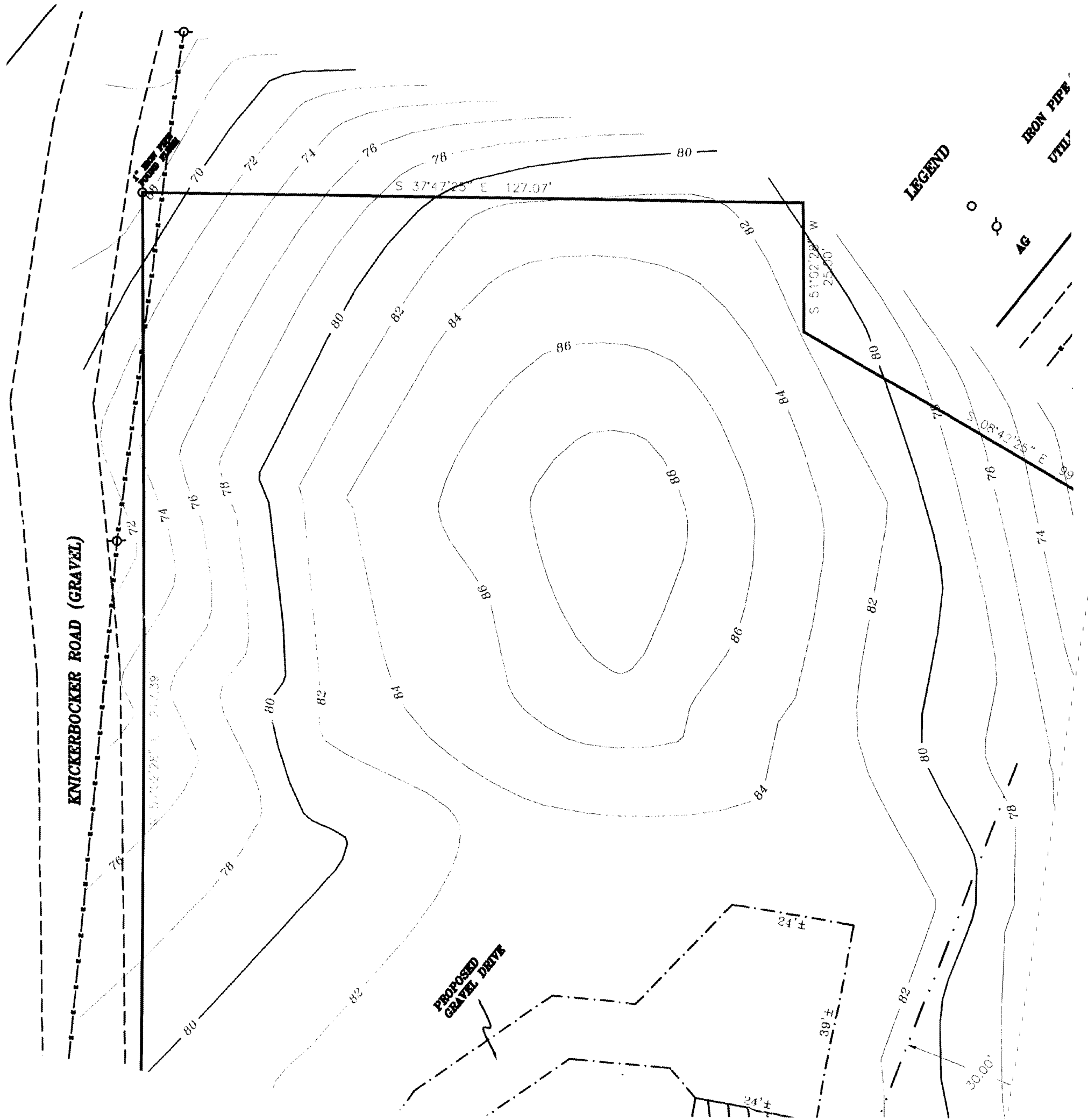
Loads Uniform TL: 600 = A Uniform LL: 480



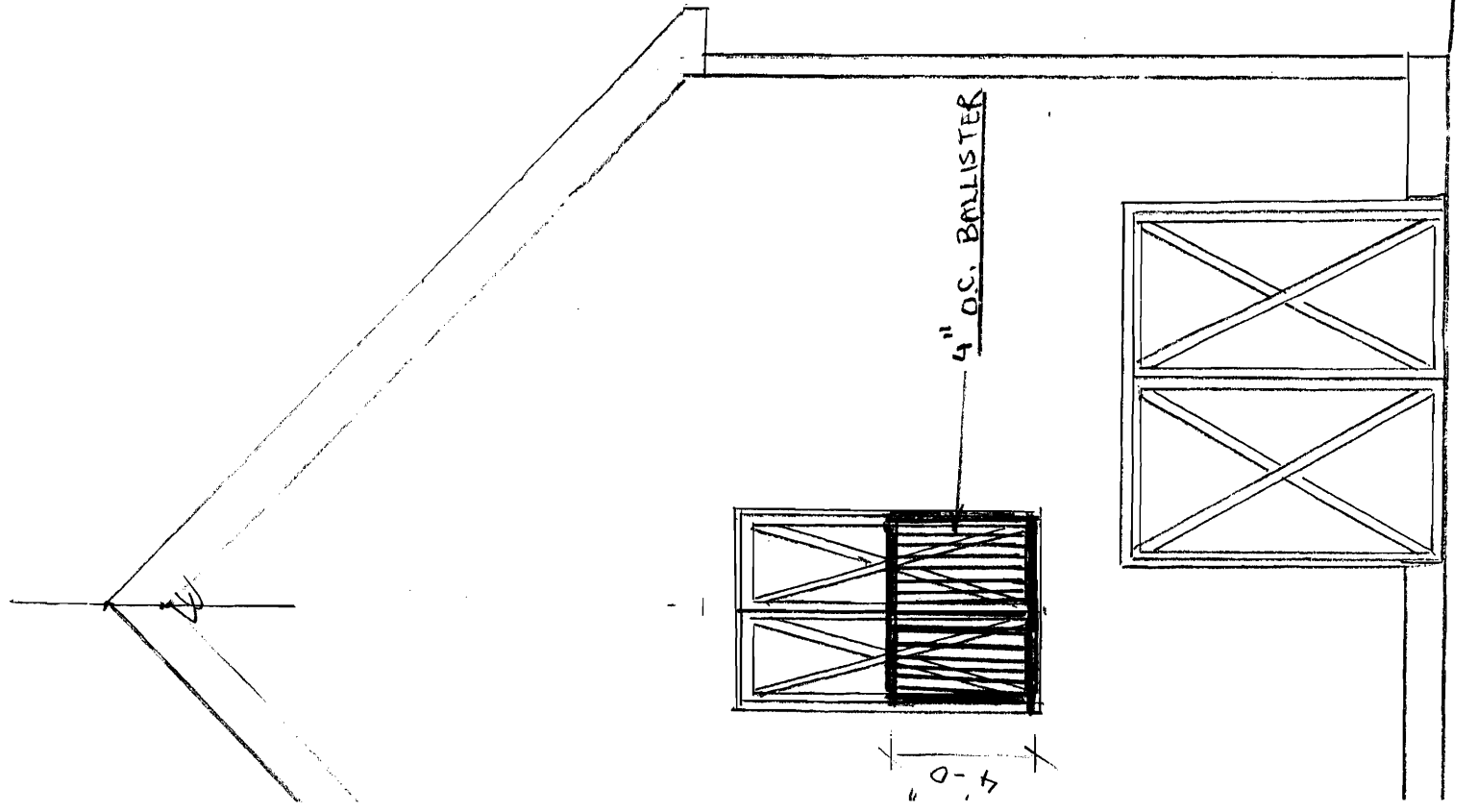
Uniform and partial uniform loads are lbs per lineal ft.

Simple span beam @ 8'-6"  
post spacing

4







Leong / Cassidy

766 5174

KNICKER BOCKER

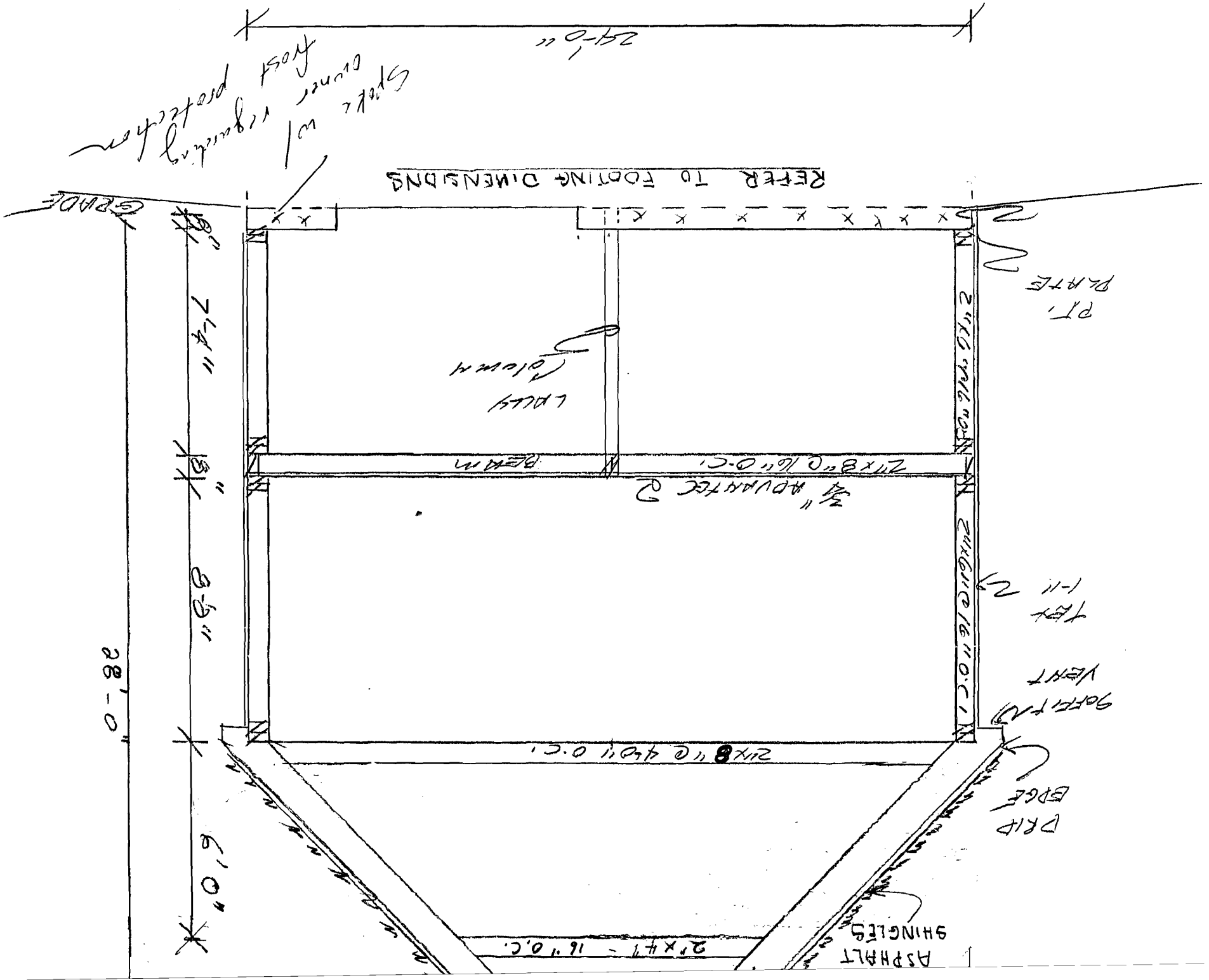
BOATHOUSE

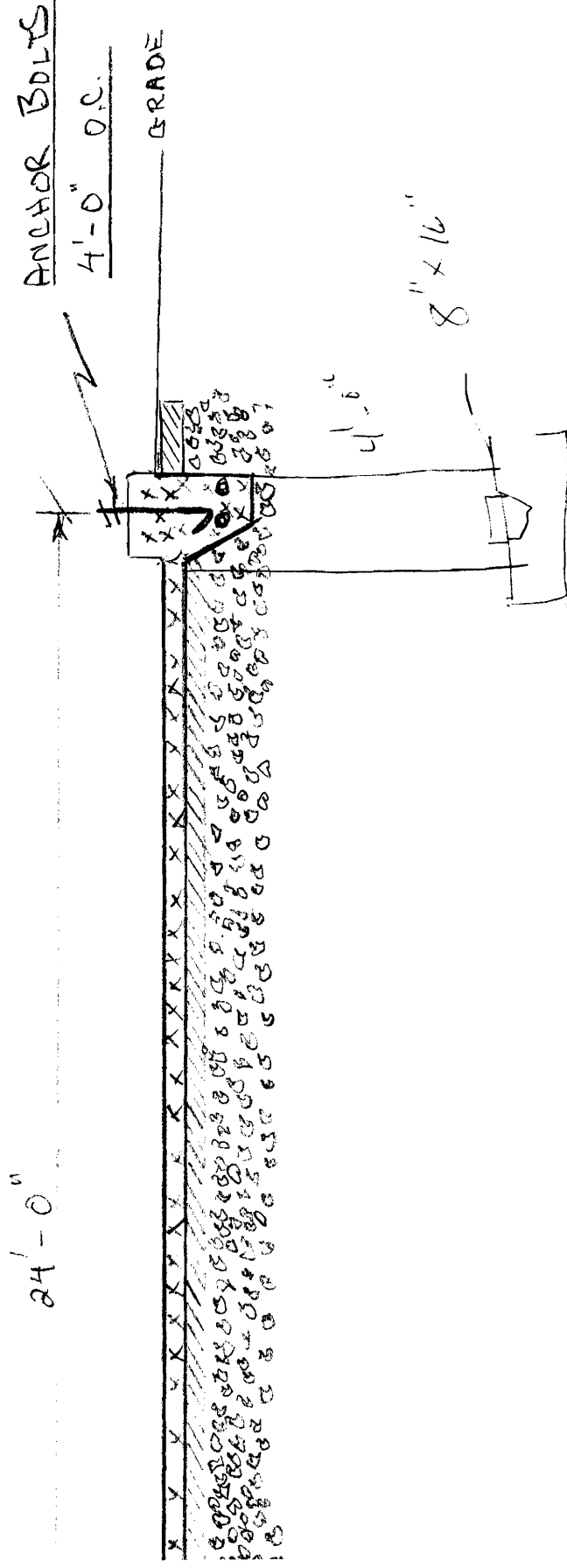
cell. 891-6297

Scale 1/4"=1'-0"	Approved By	Drawn By
Date 3-18-08	ELENG / HON	TC
Drawn For	LEONG	Revised
Location	DEATS ISLAND	Sheet
		Drawing # 5



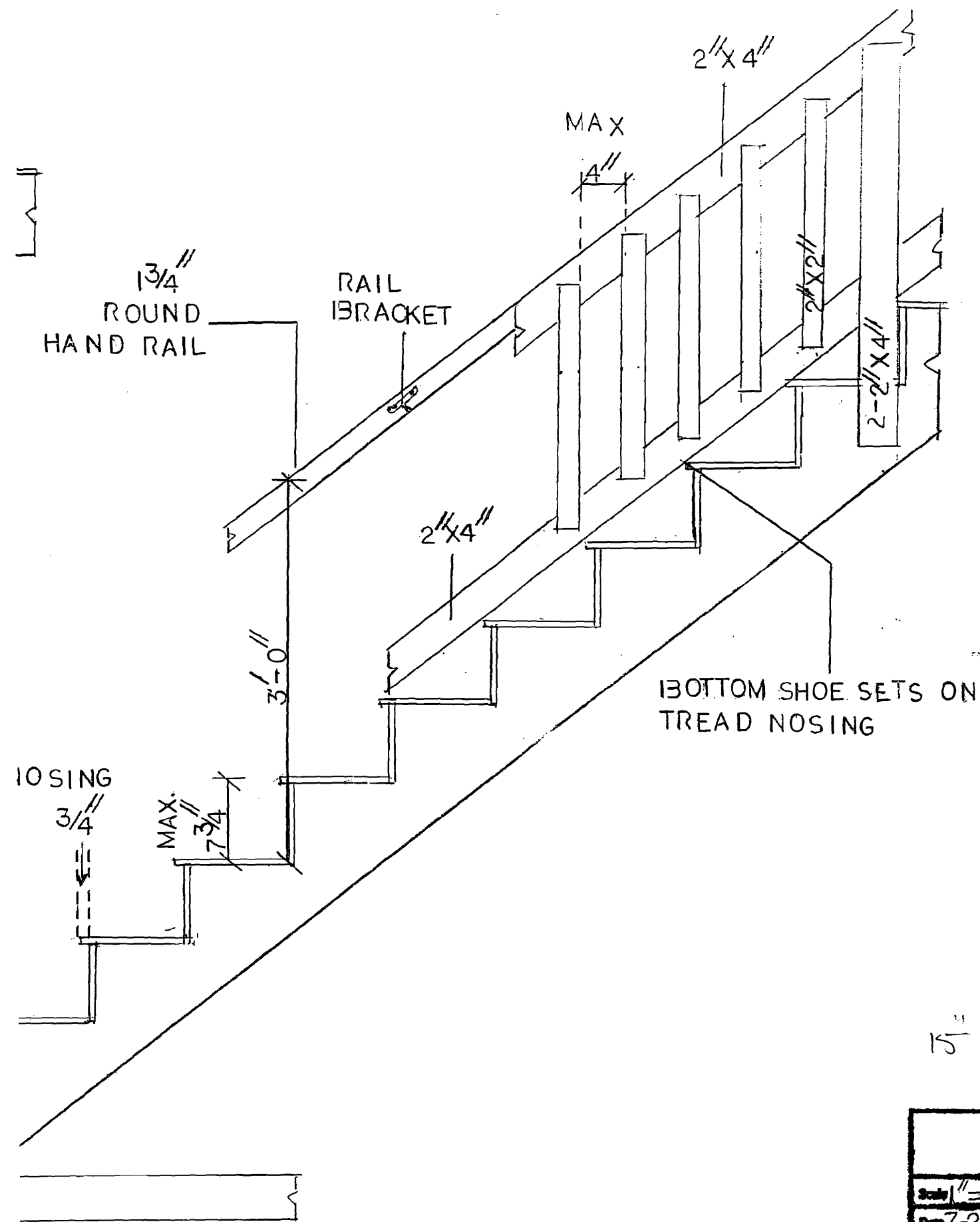
Scale 5/16"		Approved By	Drawn By
Date 3-18-08		ROSS SEI	
Drawn For LE 6016		Revised	
Location BENTON ISLAND		WLE	Drawing # 3





FOOTING DIMENSION
SCALE: 1/4" = 1'-0"
DATE: 1-6-09
DRAWN BY: PL
LOCATION: PEAKS





1. Stairs MUST be Minimum of 3'-0" wide.
2. Maximum rise 7 3/4".
3. Minimum tread 10".
4. Treads MUST have 3/4" nosing.
5. Risers MUST have kick board.
6. Tread depth is measured from nosing to nosing.
7. Rails to be 3'-0" high @ kick board.
8. Space between balusters to be NO MORE than 4".
9. 2"x4" Shoe to set on tread nosings.
10. Install 1 3/4" round handrail with handrail brackets on 2"x4".
11. Minimum headroom clearance at stairwell is 6'-8".
12. Minimum landing @ bottom step is 3'-0".
13. 2<sup>nd</sup> Floor can serve as landing @ top of stairs.
14. Steps & landings more than 30" above grade or floor require rails.
15. Risers height CAN NOT vary more than 3/8".
16. Tread depth CAN NOT vary more than 3/8".

$$15' + 81'' = 96''$$

Scale 1" = 1'-0"			Approved By	Drawn By PL
Date 7-25-08		STAIRS		Revised
Drawn For LEON G				
Location PEAKS ISLAND MB				Drawing # 4