

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

Location of Construction: <i>9 Meadowbrook Lane #4444</i>		Owner: <i>Gary & Barbara Carroll #4444</i>		Phone: <i>734-8704</i>		Permit No: 000637	
Owner Address: <i>SAA</i>		Lessee/Buyer's Name: <i>Gary & Barbara Carroll #4444</i>		Phone: <i>734-8704</i>		Business Name:	
Contractor Name: <i>Sebzgo Pools</i>		Address:		Phone: <i>856-7000</i> <i>856-1000</i>		<div style="border: 2px solid black; padding: 5px;"> PERMIT ISSUED Permit Issued: <div style="border: 1px solid black; padding: 5px; text-align: center;"> JUN 14 2000 </div> CITY OF PORTLAND Zone: <i>CBL</i> <i>73</i> 225-D-007 </div>	
Past Use: <i>Single family</i>		Proposed Use:		COST OF WORK: \$ _____ PERMIT FEE: \$ _____		INSPECTION: Use Group: Type:	
Proposed Project Description: <i>15'30 above-ground pool</i>		FIRE DEPT. <input type="checkbox"/> Approved <input type="checkbox"/> Denied Signature: _____ PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.) Action: Approved <input type="checkbox"/> Approved with Conditions: <input type="checkbox"/> Denied <input type="checkbox"/> Signature: _____ Date: _____		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"/>		Zoning Appeal <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	
Permit Taken By: <i>Kathy</i>		Date Applied For: <i>6/12/00</i>		Historic Preservation <input type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review		Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved with Conditions <input type="checkbox"/> Denied 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.

Please mail to:
 Gary & Barbara Carroll
 9 Meadowbrook Lane
 Portland, ME 04103

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

SIGNATURE OF APPLICANT	ADDRESS:	DATE: <i>6/12/00</i>	PHONE:
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE			PHONE:

PERMIT ISSUED WITH REQUIREMENTS

PERMIT ISSUED WITH REQUIREMENTS
CEO DISTRICT
3

COMMENTS

9 Meadbrook Lane
225-D-7

7/19/00 Spoke with owner - set-up appt. for 7-25-00 to measure set-backs and

7/25/00 Mike N. spoke to owner about clearing North lot lines + a fence barrier around the ladder. (mu)

7/28-00 FRI Did set-back measurements with owner she will move pool forward 1' to meet set-backs requirements. She will call when ready to install sides of pool frame. Mike N. + mu

08/04/00 Checked setbacks - rear 16" 8 inches, side (R) 10ft 3 inches side (L) + 10ft - everything OK to start digging + putting pool in. mu - 10ft 2 inches to house

4/29/02 - Pool finished - all ok
Close out 4/29/02

Inspection Record

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

Deck & Fencing



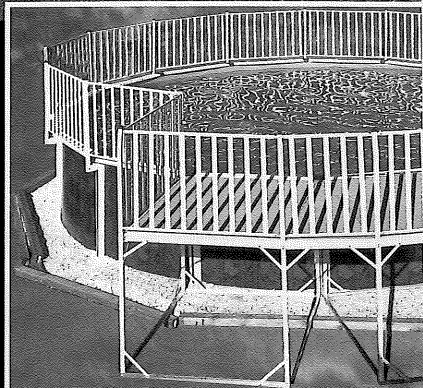
EXTRUDED
aluminum



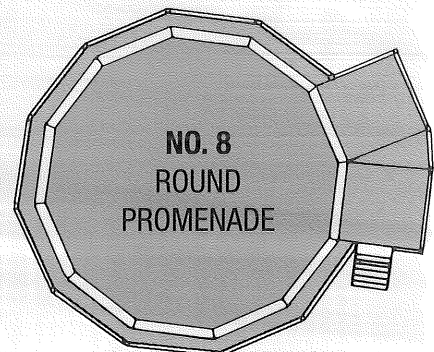
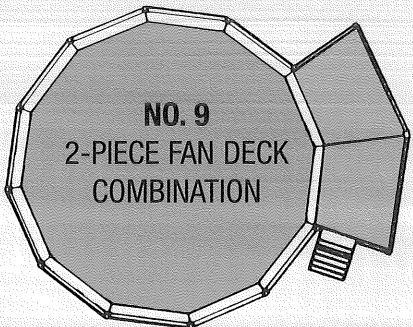
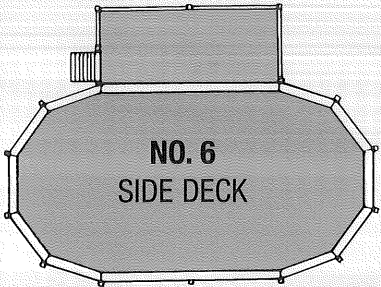
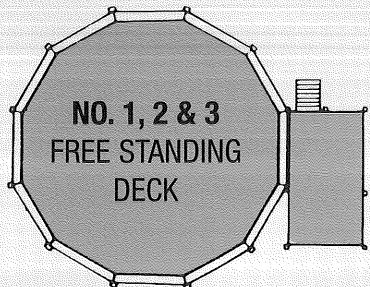
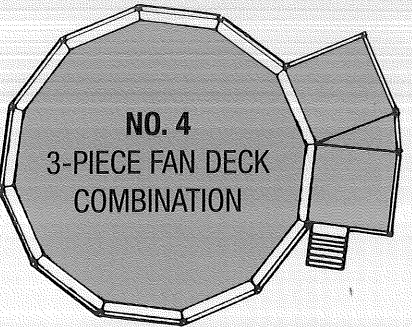
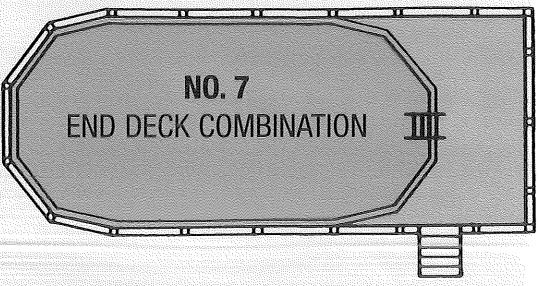
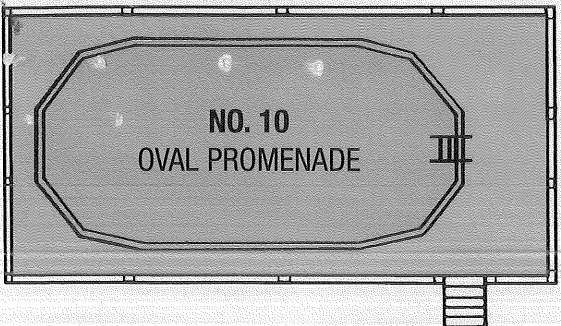
EXAmpla
for braces
No deck Around proposed
pool

see braces ~~example~~

pool, not braces need to
be 10' from rear & sides of
house



DECK & FENCING



SPECIFICATIONS AND FEATURES

- Completely welded extruded aluminum deck sections.
- Durable indoor/outdoor carpeting.
- Extruded aluminum fencing with triangular pickets for maximum strength.
- Extruded aluminum fence posts and brackets.
- Extruded aluminum outside ladder with hand rails.
- In-pool ladder.
- Maximum living area provided on decking.
- Modular, free-standing decking and universal fencing allows assembly on any Swim'n Play round or oval 6-in. ledge to 9-in. ledge pools. Many decks also fit already-assembled pools.
- **Extension Kits available to adapt all decks to 52" deep pools.**

Style Deck	1, 2 & 3	4	5	6	7	8	9	10
	3x5, 5x6 & 5x9	Free Standing 3-pc. fan deck	Free Standing 5 pc. fan deck	Side deck	End deck	Round Promenade	Free Standing 2 pc. deck	Oval Promenade
		In Width X Out Width	In Width X Out Width	Width X Depth	In Width X Out Width	Square Foot	In Width X Out Width	Square Foot
Pool Size	Width X Depth	X Square Foot	X Square Foot	X Depth	X Depth		X Square Foot	Square Foot
12-ft.	3x5, 5x6&5x9							
15-ft.	3x5, 5x6&5x9	10'x14'x6' 72	15'x23'x6' 113					
18-ft.	3x5, 5x6&5x9	10'x13.3'x6' 70	15'x20.6'x6' 110				10'x13.5'x4' 54	
21-ft.	3x5, 5x6&5x9	10'x12.8'x6' 69	15'x20.7'x6' 107					
24-ft.	3x5, 5x6&5x9	10'x12.5'x6' 68	15'x20'x6' 106			140	10'x13.5'x4' 54	
27-ft.	3x5, 5x6&5x9	10'x12.3'x6' 68	15'x19.5'x6' 104					
12-ft. x 18-ft.	3x5, 5x6&5x9			6x5				
12-ft x 24-ft.	3x5, 5x6&5x9			12x5	5'x13.5'			
15-ft x 24-ft.	3x5, 5x6&5x9	10'x14'x6' 72	15'x23'x6' 113	9x5	5'x16.5'			
15-ft. x 30-ft.	3x5, 5x6&5x9	10'x14'x6' 72	15'x23'x6' 113	15x5	5'x16.5'			225
18-ft. x 33-ft.	3x5, 5x6&5x9	10'x13.3'x6' 70	15'x21.6'x6' 110	15x5	5'x19.5'			

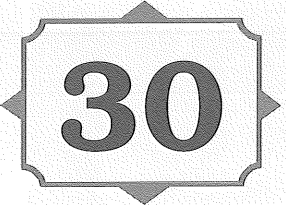
*Square footage is actual carpeted deck area

DECOR

White fencing, carpeted decking, and white posts.

DISTRIBUTED BY

SEBAGO LAKE POOLS
 Frost N' Flame
 629 Main Street
 GORHAM, ME 04038
 (207) 856-1000 • (207) 856-7000



Thirty year limited warranty
 first three seasons,
 no charge for parts.



WARNING:
 POOLS ARE NOT DESIGNED FOR DIVING OR JUMPING



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: 9 Meadowbrook Lane Portland

Tax Assessor's Chart, Block & Lot Number Chart# <u>225</u> Block# <u>D</u> Lot# <u>007</u>	Owner: <u>Gary K Carroll Barbara A</u>	Telephone#: <u>777-9504</u>
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Owner's Address: <u>9 Meadowbrook Ln.</u>	Lessee/Buyer's Name (If Applicable) <u>Gary Carroll</u>	Cost Of Work: <u>\$5,168.17</u>	Fee <u>\$60.00</u>
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Proposed Project Description:(Please be as specific as possible)
15'x30' Pool above ground

Contractor's Name, Address & Telephone <u>Sebago Lake Pools</u>	Rec'd By: 
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- SIF**
- 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

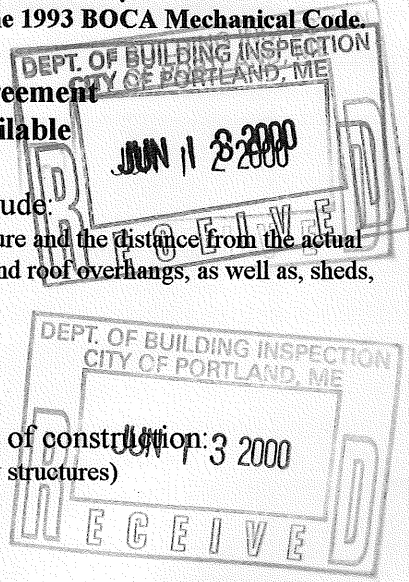
- 4) Building Plans (Sample Attached)
- A complete set of construction drawings showing all of the following elements of construction:
- Cross Sections w/Framing details (including porches, decks w/ railings, and accessory structures)
 - Floor Plans & Elevations
 - Window and door schedules
 - Foundation 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: <u>Gary Carroll</u>	Date: <u>6-13-00</u>
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Building Permit Fee: \$30.00 for the 1st \$1000. cost plus \$6.00 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.

BUILDING PERMIT REPORT

DATE: 14 June 2000 ADDRESS: 9 Meadowbrook Lane CBL: 225-D007

REASON FOR PERMIT: 15' x 30' above ground pool

BUILDING OWNER: Carroll's

PERMIT APPLICANT: _____ CONTRACTOR Sebago Pools

USE GROUP: U CONSTRUCTION TYPE: _____ CONSTRUCTION COST: 5,168.17 PERMIT FEES: 40.00

The City's Adopted Building Code (The BOCA National Building code/1999 with City Amendments)
The City's Adopted Mechanical Code (The BOCA National Mechanical Code/1993)

CONDITION(S) OF APPROVAL

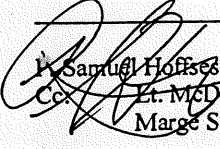
This permit is being issued with the understanding that the following conditions are met: *1, *27 *36

- ~~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) **"ALL LOT LINES SHALL BE CLEARLY MARKED BEFORE CALLING."**
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 side. (Chapter 4, Section 407.0 of the BOCA/1999)
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". 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 34" but not more than 38". Exception: Handrails that form part of a guard shall have a height not less than 36" and not more than 42". Handrail grip size shall have a circular cross section with an outside diameter of at least 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 1010.4)
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)

6/12

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/1999), 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
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 be installed and maintained to NFPA #72 Standard.
22. The Sprinkler System shall be installed and 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/1999)
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 and access shall meet the requirements of Chapter 12 Sections 1210.0 and 1211.0 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.
32. Boring, cutting and notching shall be done in accordance with Sections 2305.3, 2305.3.1, 2305.4.4 and 2305.5.1 of the City's Building Code.
33. Bridging shall comply with Section 2305.16.
34. Glass and glazing shall meet the requirements of Chapter 24 of the building code. (Safety Glazing Section 2406.0)
35. All signage, shall be done in accordance with Section 3102.0 signs of the City's Building Code, (The BOCA National Building Code/1999).

* 36. Please read and implement attached swimming pool requirements

 Samuel Hoffes, Building Inspector
 Co. Lt. McDougall, PFD
 Marge Schmuckal, Zoning Administrator

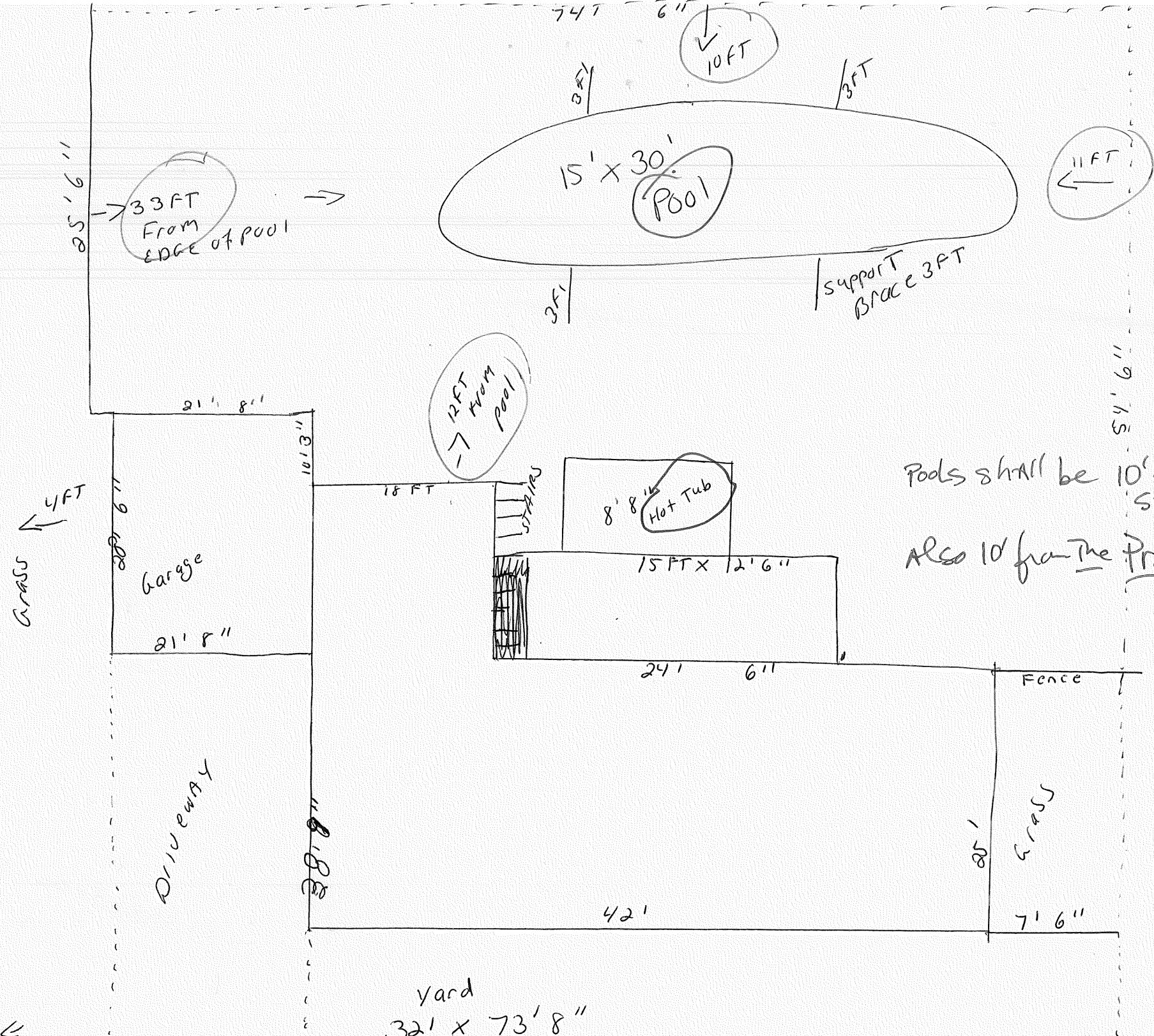
PSH 1/26/00

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

***THIS PERMIT HAS BEEN ISSUED WITH THE UNDERSTANDING THAT ALL THE CONDITIONS OF THE APPROVAL SHALL BE COMPLETED. THEREFORE, BEFORE THE WORK IS COMPLETED A REVISED PLAN OR STATEMENT FROM THE PERMIT HOLDER SHALL BE SUBMITTED TO THIS OFFICE SHOWING OR EXPLAINING THAT THE CONDITIONS HAVE BEEN MET. IF THIS REQUIREMENT IS NOT RECEIVED YOUR CERTIFICATE OF OCCUPANCY SHALL BE WITHHELD.

****CERTIFICATE OF OCCUPANCY FEE \$50.00

**** ALL PLANS THAT REQUIRE A PROFESSIONAL DESIGNER'S SEAL,(AS PER SECTION 114.0 OF THE BUILDING CODE) SHALL ALSO BE PRESENTED TO THIS DIVISION ON AUTO CAD LT.2000, OR EQUIVALENT.



Pools shall be 10' from Rear & Side lot lines
 Also 10' from the Principal house Structure

Yard 32' x 73' 8"

(1524 mm) deep.

The maximum slope permitted between point D₂ and the transition point shall not exceed one unit vertical to three units horizontal (1:3) in private and public pools. D₁ is the point directly under the end of the diving board. D₂ is the point at which the floor begins to slope upwards to the transition point (see Figure 421.5.2).

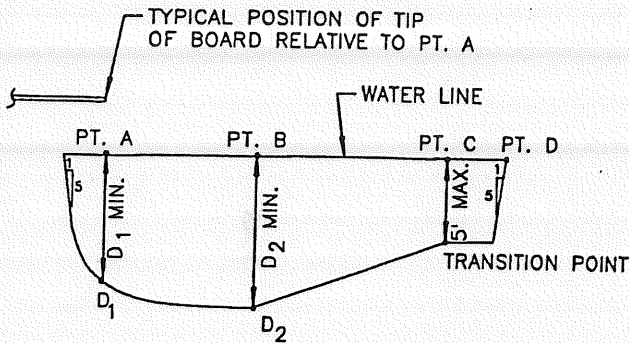


Figure 421.5.2
MINIMUM WATER DEPTHS AND DISTANCES BASED ON BOARD HEIGHT FOR PUBLIC AND PRIVATE POOLS

421.5.3 Surface cleaning: All swimming pools shall be provided with a recirculating skimming device or overflow gutters to remove scum and foreign matter from the surface of the water. Where skimmers are used for private pools, there shall be at least one skimming device for each 1,000 square feet (93 m²) of surface area or fraction thereof. For public pools where water skimmers are used, there shall be at least one skimming device for each 600 square feet (55.8 m²) of surface area or fraction thereof. Overflow gutters shall not be less than 3 inches (76 mm) deep and shall be pitched to a slope of one unit vertical to 48 units horizontal (1:48) toward drains, and constructed so that such gutters are safe, cleanable and that matter entering the gutters will not be washed out by a sudden surge of entering water.

421.5.4 Walkways: All public swimming pools shall have walkways not less than 4 feet (1219 mm) in width extending entirely around the pool. Curbs or sidewalks around any swimming pool shall have a slip-resistant surface for a width of not less than 1 foot (305 mm) at the edge of the pool, and shall be so arranged as to prevent return of surface water to the pool.

421.5.5 Steps and ladders: At least one *means of egress* shall be provided from private pools. Public pools shall provide ladders or other *means of egress* at both sides of the diving section and at least one *means of egress* at the shallow section; or at least one *means of egress* in the deep section and the shallow section if diving boards are not provided. Treads of steps and ladders shall have slip-resistant surfaces and handrails on both sides, except that handrails are not required where there are not more than four steps or where the steps extend the full width of the side or end of the pool. Treads and risers of the pool steps shall conform to the following:

1. Step treads shall have a minimum unobstructed horizontal depth of 10 inches (254 mm) and a minimum unobstructed surface area of 240 square inches (0.15 m²).
2. Risers shall have a maximum uniform height of 12 inches (305 mm) as measured at the centerline of the tread. The height of the bottom riser shall not vary more than plus or minus 2 inches (51 mm) from the uniform riser height.

421.6 Water supply: All swimming pools shall be provided with a potable water supply, free of cross connections with the pool or its equipment.

421.6.1 Water treatment: Circulation equipment for public swimming pools shall be of adequate size to turn over the entire pool water content at least once every 8 hours. The system shall be designed to provide the proper turnover rate based upon the manufacturer's recommended maximum flow rate of the filter, in clean media condition. All recirculating systems shall be provided with a hair and lint strainer installed in the system ahead of the pump.

Circulation equipment for private swimming pools shall be of adequate size to turn over the entire pool water content at least once every 12 hours. The system shall be designed to provide the proper turnover rate based upon the manufacturer's recommended maximum flow rate of the filter in clean media condition. All recirculating systems shall be provided with a hair and lint strainer installed in the system ahead of the pump.

421.6.2 Drainage systems: The swimming pool and equipment shall be equipped to be emptied completely of water and the discharged water shall be disposed of in an approved manner that will not create a nuisance to adjoining property.

421.7 Appurtenant structures: All *appurtenant structures*, installations and equipment, such as showers, dressing rooms, equipment houses or other buildings and structures, including plumbing, heating and air conditioning systems, shall comply with all applicable requirements of this code.

421.7.1 Accessories: All swimming pool accessories shall be designed, constructed and installed so as not to be a safety hazard. Installations or structures for diving purposes shall be properly anchored to insure stability.

421.8 Equipment installations: Pumps, filters and other mechanical and electrical equipment for public swimming pools shall be enclosed in such a manner as to provide access only to authorized persons and not to bathers. Construction and drainage shall be arranged to avoid the entrance and accumulation of water in the vicinity of electrical equipment.

421.9 Enclosures for public swimming pools: Public swimming pools shall be provided with an enclosure surrounding the pool area. The enclosure shall meet the provisions of Sections 421.9.1 through 421.9.3.

421.9.1 Enclosure: The enclosure shall extend not less than 4 feet (1219 mm) above the ground. All gates shall be self-closing and self-latching with latches placed at least 4 feet (1219 mm) above the ground.

421.9.2 Construction: Enclosure fences shall be constructed so as to prohibit the passage of a sphere larger than 4 inches (102 mm) in diameter through any opening or under the fence. Fences shall be designed to withstand a horizontal concentrated *load* of 200 pounds (896 N) applied on a 1-square-foot (0.093 m²) area at any point of the fence.

421.9.3 Alternative devices: A natural barrier, pool cover or other protective device approved by the governing body shall be an acceptable enclosure as long as the degree of protection afforded by the substituted device or structure is not less than the protection afforded by the enclosure, gate and latch described herein.

421.10 Enclosures for private swimming pools, spas and hot tubs: Private swimming pools, spas and hot tubs shall be enclosed in accordance with Sections 421.10.1 through 421.10.4 or by other approved barriers.

421.10.1 Outdoor private swimming pool: An outdoor private swimming pool, including an in-ground, above-ground or on-ground pool, hot tub or spa shall be provided with a barrier which shall comply with the following.

1. The top of the barrier shall be at least 48 inches (1219 mm) above finished ground level measured on the side of the barrier which faces away from the swimming pool. The maximum vertical clearance between finished ground level and the barrier shall be 2 inches (51 mm) measured on the side of the barrier which faces away from the swimming pool. Where the top of the pool structure is above finished ground level, such as an above-ground pool, the barrier shall be at finished ground level, such as the pool structure, or shall be mounted on top of the pool structure. Where the barrier is mounted on the pool structure, the opening between the top surface of the pool frame and the bottom of the barrier shall not allow passage of a 4-inch (102 mm) diameter sphere.
2. Openings in the barrier shall not allow passage of a 4-inch (102 mm) diameter sphere.
3. Solid barriers shall not contain indentations or protrusions except for normal construction tolerances and tooled masonry *joints*.
4. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is less than 45 inches (1143 mm), the horizontal members shall be located on the swimming pool side of the fence. Spacing between vertical members shall not exceed 1³/₄ inches (44 mm) in width. Decorative cutouts shall not exceed 1³/₄ inches (44 mm) in width.
5. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is 45 inches (1143 mm) or more, spacing between vertical members shall not exceed 4 inches (102 mm). Decorative cutouts shall not exceed 1³/₄ inches (44 mm) in width.
6. Maximum mesh size for chain link fences shall be a 1¹/₄-inch (32 mm) square unless the fence is provided with slats fastened at the top or the bottom which

reduce the openings to not more than 1³/₄ inches (44 mm).

7. Where the barrier is composed of diagonal members, such as a lattice fence, the maximum opening formed by the diagonal members shall be not more than 1³/₄ inches (44 mm).
8. Access gates shall comply with the requirements of items 1 through 7 of Section 421.10.1, and shall be equipped to accommodate a locking device. Pedestrian access gates shall open outwards away from the pool and shall be self-closing and have a self-latching device. Gates other than pedestrian access gates shall have a self-latching device. Where the release mechanism of the self-latching device is located less than 54 inches (1372 mm) from the bottom of the gate: (a) the release mechanism shall be located on the pool side of the gate at least 3 inches (76 mm) below the top of the gate; and (b) the gate and barrier shall not have an opening greater than 1/2 inch (13 mm) within 18 inches (457 mm) of the release mechanism.
9. Where a wall of a *dwelling unit* serves as part of the barrier and contains a door that provides direct access to the pool, one of the following shall apply:
 - 9.1. All doors with direct access to the pool through that wall shall be equipped with an alarm which produces an audible warning when the door and its screen, if present, are opened. The audible warning shall commence not more than 7 seconds after the door and door screen, if present, are opened and shall sound continuously for a minimum of 30 seconds. The alarm shall have a minimum sound pressure rating of 85 dBA at 10 feet (3048 mm) and the sound of the alarm shall be distinctive from other household sounds such as smoke alarms, telephones and door bells. The alarm shall automatically reset under all conditions. The alarm shall be equipped with manual means, such as touchpads or switches, to deactivate temporarily the alarm for a single opening from either direction. Such deactivation shall last for not more than 15 seconds. The deactivation touchpads or switches shall be located at least 54 inches (1372 mm) above the threshold of the door.
 - 9.2. All doors with direct access to the pool through that wall shall be equipped with a self-closing and self-latching device with the release mechanism located a minimum of 54 inches (1372 mm) above the floor. Swinging doors shall open away from the pool area.
 - 9.3. The pool shall be equipped with a power safety cover. Where in a closed position, the cover shall be capable of holding a weight of 485 pounds (2157 N), shall not have any openings that allow passage of a 4¹/₂-inch (114 mm) sphere and shall incorporate a system to drain standing water that collects on the cover. The cover control switch shall be permanently in-

stalled in accordance with NFPA 70 listed in Chapter 35, and be key-operated and of a spring-loaded or momentary-contact type. Where the switch is released, the operation of the cover shall stop instantly and be capable of reversing direction immediately. The switch shall be in the line of sight of the complete pool cover.

10. Where an above-ground pool structure is used as a barrier or where the barrier is mounted on top of the pool structure, and the means of access is a fixed or removable ladder or steps, the ladder or steps shall be surrounded by a barrier which meets the requirements of items 1 through 9 of Section 421.10.1. A removable ladder shall not constitute an acceptable alternative to enclosure requirements.

421.10.2 Indoor private swimming pool: All walls surrounding an indoor private swimming pool shall comply with Section 421.10.1, item 9.

421.10.3 Prohibited locations: Barriers shall be located so as to prohibit permanent structures, equipment or similar objects from being used to climb the barriers.

421.10.4 Exemptions: The following shall be exempt from the provisions of this section.

1. A spa or hot tub with an approved safety cover.
2. Fixtures which are drained after each use.

421.11 Diving boards: Minimum water depths and distances for diving hoppers for pools, based on board height above water, shall comply with Table 421.11(1) for public pools and Table 421.11(2) for private pools.

**Table 421.11(1)
MINIMUM WATER DEPTHS AND DISTANCES BASED ON BOARD HEIGHT FOR PUBLIC POOLS^a**

Board height	Minimum depth ^b at D ₁ directly under end of board	Distance ^b between D ₁ and D ₂	Minimum depth ^b at D ₂
2'2" (2/3 meter)	7'0"	8'0"	8'6"
2'6" (3/4 meter)	7'6"	9'0"	9'0"
1 meter	8'6"	10'0"	10'0"
3 meter	11'0"	10'0"	12'0"

Note a. See Figure 421.5.2 for the locations of D₁ and D₂.
Note b. 1 foot = 304.8 mm.

**Table 421.11(2)
MINIMUM WATER DEPTHS AND DISTANCES BASED ON BOARD HEIGHT FOR PRIVATE POOLS^a**

Board height	Minimum depth ^b at D ₁ directly under end of board	Distance ^b between D ₁ and D ₂	Minimum depth ^b at D ₂
1'8" (1/2 meter)	6'0"	7'0"	7'6"
2'2" (2/3 meter)	6'10"	7'6"	8'0"
2'6" (3/4 meter)	7'5"	8'0"	8'0"
3'4" (1 meter)	8'6"	9'0"	9'0"

Note a. See Figure 421.5.2 for the locations of D₁ and D₂.
Note b. 1 foot = 304.8 mm.

SECTION 422.0 STORAGE RACKS

422.1 Applicability: The provisions of this section shall apply to all parts of buildings and structures which contain bin box storage, or shelf storage, rack systems as herein defined.

422.2 Definitions: The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.

Bin box storage: Storage in five-sided boxes with open face on the aisle. Boxes are self-supporting or supported by a structure so designed that little or no horizontal or vertical space exists around boxes.

Rack systems: Structures designed to store materials and products.

Shelf storage: Storage on structures equal to or less than 30 inches (762 mm) deep with shelves a maximum of 2 feet (610 mm) apart vertically and separated by minimum 30-inch (762 mm) aisles.

422.3 Rack systems: Bin box storage, or shelf storage, rack systems, including their aisles and stairs, shall not contribute to the number of stories as regulated by Section 503.3, or to the number of mezzanines as regulated by Section 505.0, where meeting all of the following conditions:

1. The building, including the rack systems, is equipped throughout with an automatic sprinkler system in accordance with Section 906.2.1.
2. The rack systems, aisles, and stairs are not part of the structural framework of the building.
3. The rack systems and stairs are of noncombustible materials. The aisles are of expanded metal or metal grid.
4. The structural design of the rack systems, aisles, and stairs complies with Chapter 16.
5. The aisles and stairways are designed to comply with the means of egress provisions of Chapter 10.