SWIMMING POOL INFORMATION & REGULATIONS

As per the previously published public notice attached, all pool owners must comply with the enclosed MSBC Requirement. Be further aware that the N.S.C. recommends that the depth of the pool be 9 to 10 feet deep to a point 16 feet out from the end of the diving board.

A Building Permit is required for any in ground or above ground swimming pool 2 feet in depth and over. The pool must comply with requirements of the State Building Code and Zoning Bylaws of the Town of Mendon.

WIRING PERMIT: A wiring permit is required for the wiring of the filter system, grounding of the pool and other metal parts. When submitting a Building Permit application, a wiring application ***must*** be submitted. Also, an electrician must submit the wiring application. Applications may be obtained from the Building Department office at the Town Hall, Monday – Thursday 7:30am-4:30pm. The fee for the wiring permit is $75.00.

PLUMBING PERMIT: A plumbing permit is required for a silcox valve. A plumbing permit application ***must*** be submitted at the same time as the building permit application. A homeowner may submit the plumbing application. The fee for a plumbing permit is $40.00.

POOL PERMIT: A Pool Permit ***must be obtained through the Board of Health*** office for ***in ground*** pools only. The fee for a Pool Permit is $50.00.

BUILDING PERMIT APPLICATION: If a Pool Contractor is installing the pool, he must fill out the application form, and include his construction supervisor's license number. The fee is as per schedule.

CONSERVATION COMMISSION: If installing an in ground pool, you must obtain a sign off from the Conservation Commission. Office hours are Tuesday and Thursday from 10am to 2pm. Phone number is 508-634-6898.

CERTIFIED PLOT PLAN: A certified plot plan showing the location of the pool must be provided. The area to be fenced should be pencilled in. ***The pool must be located a minimum of 15 feet from the side and rear lot lines, and a minimum of 85 feet back from the center of the road.*** A house located on a corner lot has two front lot lines. The pool must be at ***least 10 feet from the septic tank and at least 20 feet from the leaching field.***

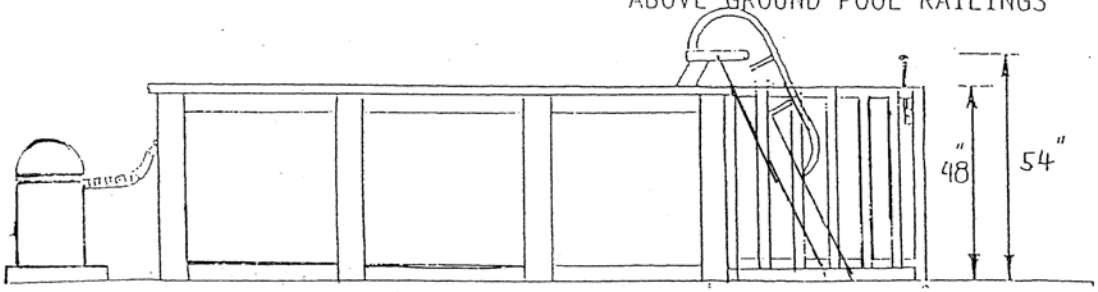
ZONING RELIEF: If you are unable to meet the setback requirements of the Zoning Bylaws, you may seek relief by applying to the Board of Appeals.

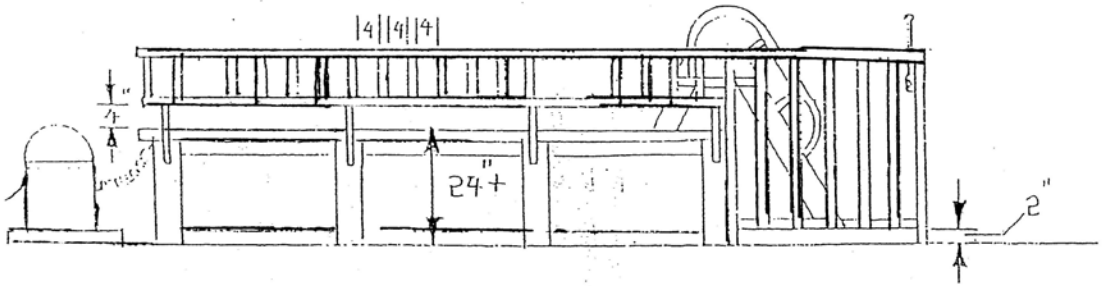
POOL SPECIFICATIONS: The specifications must be submitted with the Building Permit application. If a diving board is planned, include a diagram of its construction details and its overhang into the pool area.

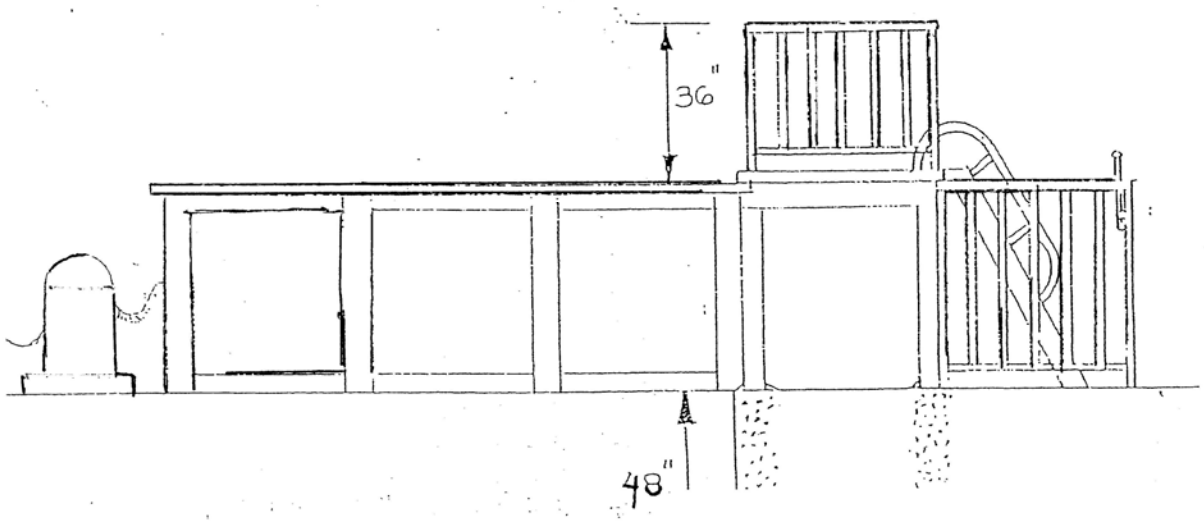
FENCING: All swimming pools shall be completely enclosed by a fence, wall building or combination thereof, not less than four (4) feet in height and not more than 4" spacing between balustrades. All gates and door openings through such enclosure shall not be less than four (4) feet in height and shall be self-closing with a self-latching device located not more than one (1) foot below the top for keeping the gate securely closed at all times when not in use. Except that the door of any building, which forms a part of the enclosure needs to be equipped with an alarm of 85 decibels. A ladder shall be enclosed for aboveground pools utilizing an access ladder, this to be placed around the ladder. The use of removal ladder is not allowed. Each gate, door or ladder shall be kept locked at all times when the swimming pool area is not in use. The unlatching device must be at least 54 inches high.

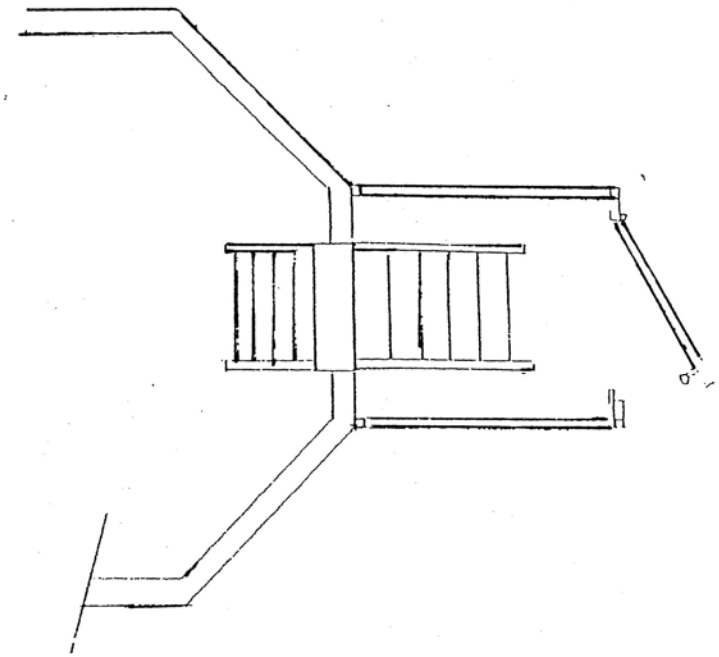
EXAMPLE

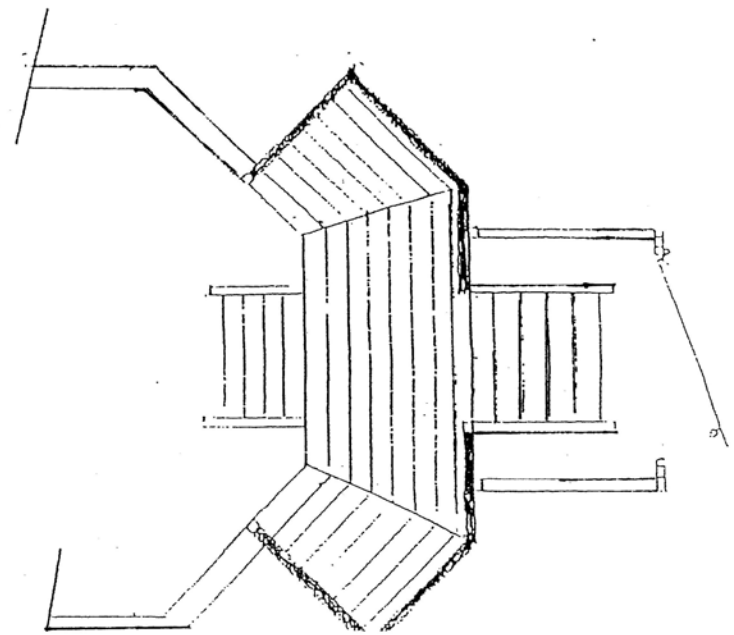
ABOVE GROUND POOL RAILINGS











780 CMR 421.0 SWIMMING POOLS

(Refer to M.G.L. c. 140, § 206 for further requirements pertaining to public or semi-public, outdoor, inground swimming pool enclosures, safety equipment, inspection, and penalties for violations.)

421.1 General: Swimming and bathing pools shall conform to the requirements of 780 CMR 421.0 provided that 780 CMR 421.0 shall not be applicable to any such pool less than 24 inches (610 mm) deep or having a surface area less than 250 square feet (23.25 m^2), except where such pools are permanently equipped with a water-recirculating system or involve structural materials. For the purposes of 780 CMR, pools are classified as private swimming pools, public swimming pools ***or semi-public swimming pools***, as defined in 780 CMR 421.2. Materials and constructions used in swimming pools shall comply with the applicable requirements of 780 CMR.

421.2 Definitions: The following words and terms shall, for the purposes of 780 CMR 421.0 and as used elsewhere in 780 CMR, have the meanings shown herein.

Pools, swimming, hot tubs and spas

Above-ground/on-ground pool: See definition of private swimming pool.

Barrier: A fence, a wall, a building wall or a combination thereof which completely surrounds the swimming pool and obstructs access to the swimming pool. ***(Refer to M.G.L. c. 140, § 206 for required enclosure of public or semi-public, outdoor, inground swimming pools.)***

Hot tub (special purpose pool): A unit designed for recreational and therapeutic use which is shallow in depth and not meant for swimming or diving. These pools are not drained, cleaned or refilled for each user. It may include, but not be limited to hydrojet circulation, hot water, cold water mineral baths, air induction bubbles, or any combination thereof. Industry terminology for such a pool includes but is not limited to, therapeutic pool, hydrotherapy pool, whirlpool, hot spa, hot tubs, float tanks, etc. This standard excludes residential units and facilities used or under the direct supervision and control of licensed medical personnel.

In-ground pool: See definition of private swimming pool.

Private swimming pool: Any structure that contains water over 24 inches (610 mm) in depth and which is used, or intended to be used, for swimming or recreational bathing in connection with an occupancy in Use Group R-3 ***or R-4*** and which is available only to the family and guests of the householder. This includes in-ground, above-ground and on-ground swimming pools, hot tubs and spas.

Private swimming pool, indoor: Any private swimming pool that is totally contained within a private structure and surrounded on all four sides by walls of said structure.

Private swimming pool, outdoor: Any private swimming pool that is not an indoor pool.

Public *outdoor, inground* swimming pool: Any swimming pool ***which is used, or intended to be used, for swimming or recreational bathing by the general public. Refer to M.G.L. c. 140, § 206 for requirements pertaining to public or semi-public, outdoor, inground swimming pool enclosures, safety equipment, inspection, and penalties for violations.***

Public swimming pool, outdoor: Any public swimming pool that is not defined as an outdoor, inground swimming pool.

Semi-public outdoor, inground swimming pool: (as defined by M.G.L. c. 140, § 206) any swimming or wading pool on the premises of, or used in connection with, a hotel, motel, trailer court, apartment house, country club, youth club, school, camp, or similar establishment where the primary purpose of the establishment is not the operation of the swimming facilities. Semi-public outdoor, inground swimming pool shall also mean a pool constructed and maintained by groups for the purposes of providing bathing facilities for members and quests only. Refer to M.G.L. c. 140, § 206 for requirements pertaining to public or semi-public, outdoor, inground swimming pool enclosures, safety equipment, inspection, and penalties for violations.

Semi-public swimming pool, outdoor: Any semi-public swimming pool that is not defined as a semi-public outdoor, inground swimming pool.

Spa: See definition of private swimming pool.

Wading Pool: Aa pool of water in a basin having a maximum depth of less than two feet intended chiefly as a wading place for children. It does not include any residential pool as herein defined.

421.3 Permits and construction documents: A swimming pool or appurtenances thereto shall not be constructed, installed, enlarged or *altered* until *construction documents* have been submitted and a permit has been obtained from the code official. The approval of all city, county and state authorities having jurisdiction over swimming pools shall be obtained before applying to the code official for a permit. Certified copies of these approvals shall be filed as part of the supporting data for the permit application.

421.3.1 Construction documents: *Construction documents* shall accurately show dimensions and construction of the pool and appurtenances and properly established distances to *lot lines*, buildings, walks and fences, as well as details of the water supply system, drainage and water disposal systems, and all appurtenances pertaining to the swimming pool. Detailed *construction documents* of structures, vertical elevations and sections through the pool showing depth shall be included.

421.4 Locations: Private swimming pools shall not encroach on any front or side yard required by 780 CMR or by the governing zoning law, unless in accordance with specific rules of the jurisdiction in which the pool is located. A wall of a swimming pool shall not be located less than six feet (1829 mm~~)~~ from any rear or side property line or ten feet (3048 mm) from any street property line, unless in accordance with specific rules of the jurisdiction in which the pool is located.

421.5 Structural design: The pool structure shall be engineered and designed to withstand the expected forces to which the pool will be subjected.

421.5.1 Wall slopes: To a depth up to two feet nine inches (838 mm) from the top, the wall slope shall not be more than one unit horizontal in five units vertical (l:5).

421.5.2 Floor slopes: The slope of the floor on the shallow side of the transition point shall not exceed one unit vertical to seven units horizontal (l:7). For public pools greater than 1,200 square feet (111.6 m^2), the slope of the floor on the shallow side of the transition point shall not exceed one unit vertical to ten units horizontal (l:l0). The transition point between shallow and deep water shall not be more than five feet (1524 mm) deep.

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 l,000 square feet (93 m^2) of surface area or fraction thereof. For public pools where water skimmers are used, there shall be at least one skimming device for each 500 square feet (55.8 m^2) of surface area or fraction thereof. Overflow gutters shall not be less than three inches (76 mm) deep and shall be pitched to a slope of one unit vertical to 48 units horizontal (l: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 ***and semi-public*** swimming pools shall have walkways not less than four 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 four 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. ***All*** public ***and semi-public*** pools shall provide ladders to 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. ***(Refer to 521 CMR 19.00, the Architectural Access Board's rules and regulations, for requirements pertaining to the accessibility of all public and semi-public swimming pools.)***

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: ***See 105 CMR 935.000 Minimum Standards for Swimming Pools.***

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 780 CMR***, applicable zoning laws and requirements, 105CMR 435.000: Minimum Standards for Swimming Pools (State Sanitary Code: Chapter V), 248 CMR 2.00 : the State Plumbing Code, and 527 CMR 12.00: the State Electrical 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 *outdoor, inground* public *and semi-public* swimming pools: ***Outdoor, inground*** public and ***semi-public*** swimming pools shall be provided with an enclosure ***in accordance with M.G.L. c. 140, § 206.***

421.9.1 Enclosure *for public and semi-public outdoor, inground swimming pools*: *Every public and semi-public outdoor, inground swimming pool shall be enclosed by a fence six feet in height and firmly secured at ground level provided that any board or stockade fence or structure shall be at least five feet in height, but if over five feet in height, the fence shall be chain link. Such enclosure, including gates therein, shall not be less than six feet above the ground, and any gate shall be self-latching with latches placed four feet above the ground or otherwise made inaccessible from the outside to children up to eight years of age. Such enclosure shall be constructed of such material and maintained so as not to permit any opening in said enclosure, other than a gate, wider than three inches at any point along the enclosure. Any such pool shall be equipped with at least one life ring and rescue hook.*

421.9.1.1 Enclosure for all other public and semi-public swimming pools: The enclosure shall extend not less than four feet (1219 mm) above the ground. All gates shall be self-closing and self-latching with latches placed at least four feet (1219 mm) above the ground.

421.9.2 Construction *of enclosure for all other public and semi-public swimming pools*: Enclosure fences shall be constructed so as to prohibit the passage of a sphere larger than four 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 (91 kg) applied on a one-square-foot (0.093 m2) area at any point of the fence.

421.10 Enclosures for private swimming pools, spas and hot tubs: ***In lieu of any zoning laws or ordinances to the contrary,*** private swimming pools, spas and hot tubs shall be enclosed in accordance with 780 CMR 421.l0.l 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.

l. 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 two 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 top of the pool structure, the maximum vertical clearance between the top of the pool structure and the bottom of the barrier shall be four inches (102 mm).

2. Openings in the barrier shall not allow passage of a four-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 1¾ inches (44 mm) in width. Decorative cutouts shall not exceed 1¾ 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 four inches (102 mm). Decorative cutouts shall not exceed 1¾ inches (44 mm) in width.

6. Maximum mesh size for chain link fences shall be a 1¼-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 1¾-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 1¾ inches (44 mm).

8. Access gates shall comply with the requirements of 780 CMR 421.10.1 items 1 through 7, 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 three inches (76 mm) below the top of the gate; and (b) the gate and barrier shall not have an opening greater than ½ inch (13 mm) within 18 inches (457 mm) of the release mechanism.

9. Where a wall of a dwelling serves as part of the barrier, 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 seven seconds after the door and screen door, 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 ten 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. The pool shall be equipped with an approved power safety 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 780 CMR 421.10.1 items 1 through 9. 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 780 CMR 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 780 CMR 421.0.

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.

The maximum slope permitted between point D_2 and the transition point shall not exceed one unit vertical to three units horizontal (1:3) in private and public pools. D_1 is the point directly under the end of the diving boards. D_2 is the point at which the floor begins to slope upwards to the transition point. See Figure 421.11.

Figure 421.11
MINIMUM WATER DEPTHS AND DISTANCES BASED ON BOARD HEIGHT FOR *ALL* PUBLIC, *SEMI PUBLIC* AND PRIVATE POOLS

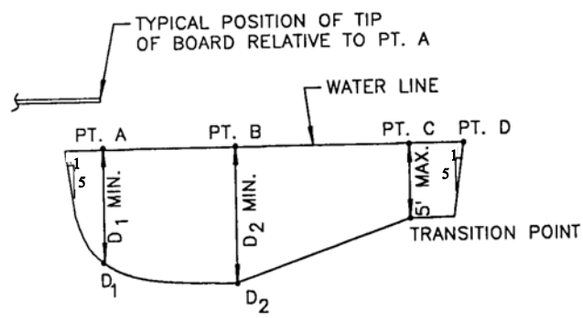


Table 421.1 1(1)
MINIMUM WATER DEPTHS AND DISTANCES BASED ON BOARD HEIGHT FOR *ALL* PUBLIC POOLS

Board height	Minimum depth[a] at D_1 directly under end of board	Distance[a] between D_1 and D_2	Minimum depth[a] at D_2
2'2" (_ meter)	7'0"	8'0"	8'6"
2'6" (¾ 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. 1 foot = 304.8 mm.

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

Board height	Minimum depth[a] at D_1 directly under end of board	Distance[a] between D_1 and D_2	Minimum depth[a] at D_2
1'8" (½ meter)	6'0"	7'0"	7'6"
2'2" (_ meter)	6'10"	7'6"	8'0"
2'6" (¾ meter)	7'5"	8'0"	8'0"
3'4" (1 meter)	8'6"	9'0"	9'0"

Note a. 1 foot = 304.8 mm.