Hodworth Company, N.Y.

Pool as designed
Alternate design (filter and pumping from stream)

I think the use of brook water is excellent.
But it is not necessary to fill pool in 12 hours or even 24 hours as it will be changed only once or twice in summer.
Therefore, a smaller motor might be more

Try to get the estimate down to $600 by further study of pumps.

JVR
Copy of this letter sent to Mr. Hagle  

April 19, 1936  

Captain Edwin P. Look, Jr.  
United States Department of the Interior  
National Park Service  
Navy Building  
Washington, D. C.  

Dear Captain Lock:  

Confirming my telephone communication with you of even date and at your request as to the cost of the well together with the pump and all necessary fittings such as 4" drop pipe, brass double acting cylinder and the necessary drop rods with couplings, the setting of the pump installed and working together with electrical connections would cost Nine Hundred Forty-Five Dollars ($945).  

We do not feel that this extra cost is necessary.  

In your specifications you call for a rate of flow from the well of 35 gallons per minute for filling, which would mean a period of approximately 21 hours for filling. In our proposal in taking the water from the stream we have figured the rate of flow at 60 gallons per minute both for filling and recirculating, which would bring the time of filling to approximately 12 hours. There is another question that must be considered and that is that no one can positively guarantee the flow of a well. There is no way possible that one can be assured of any such flow. This is particularly so where the well is to be drilled through rock. There is no telling how far you will have to go in depth to intercept a strata of water which will give this flow of 35 gallons a minute. In discussing the well question with the local well drillers, they feel that there is a very good chance of getting this amount of water, but it is strictly a matter of guess work and good fortune. On the other hand, there is no question involved as to the amount of water that we can get from the stream. You will note in our recommendations that we have not figured the well in our proposal so that if the well is to be drilled, the cost of same as above mentioned must be added to our figure of $8,500.  

As to the efficiency of this recommendation of putting in a filtration plant, there is no question involved as to the clarity of the water and as to the bacteriological analysis of same. You have in this installation a miniature municipal filtration plant which is the general practice for the supplying of drinking water in nearly all of the large cities where water works are involved and I strongly recommend the installation.  

Very sincerely yours,  

HASBROUCK COMPANY, Inc.  

MH:TF
April 19, 1936

Captain Edwin F. Lock, Jr.
White House
Washington, D. C.

Dear Sir:

This is to confirm my personal interview with you and Mr. Nagle at Mr. Nagle's office under date of April 18, at which time the construction of the swimming pool on President Roosevelt's Estate at Hyde Park was discussed. Certain suggestions were made and at your request, we are setting forth those items which we suggested as follows:

That the pool be poured in one continuous operation. We strongly recommend a monolithic job, especially for a pool of this size; also that all corners of the base where the wall comes in contact with the floor to have a 4" cove, which cove is to be incorporated into the original pour. That all four corners be constructed so as to form a 2' radius as a safeguard against possible fracture from frost. We suggest the substitution of a stone gutter in place of troweled finish cement. To substitute Hudson River blue stone flag walk in place of cobble orchard, the reason for this being that all surrounding stone in place is of this same character which is a local product and will conform to all walks and general surroundings. We understand that the Government specification for cobble orchard is from 2" to 12" in thickness. We do not feel that this thickness of stone has sufficient body to stand up on a sand base without possible rooking and fracture under any severe impact. The stone that we suggest would be not less than from 2" to 2½" in thickness.

All fittings such as gutter drains, inlets, outlets and ladder to be of brass instead of chromium plated and galvanized iron. To construct the springboard supports of concrete, covering same with blue stone to conform with the walk around the springboard platform, doing away with a possible rust condition which in turn would cause a stain on the walk area. To use terra cotta bell and spigot 4" pipe around the perimeter of the pool for the gutter drains in place of cast iron. This pipe to be laid on firm base down to pool excavated area so as to overcome all possibility of settlement and breakage due to the placing of fill which is characteristic of work of this kind where the pipes are hung on the pool structure. All vertical lines from the gutter drains down to the tile drains to be of cast iron. To change the location of the main control valve and build a pit so that this valve can be accessible if at any time it is necessary to clean the gate chamber due to sediment which collects and which causes a leakage through the gate area. The main discharge pipe to be of cast iron up to the point of control valve, from which point terra cotta pipe is to run to a point of discharge. We strongly suggest that the contour of the pool be changed so that the main drain will be at the end of the pool instead of under the floor and suggest one main drain instead of two.
To reconsider the digging of a well and in place of a well supply, to pump the water from the present stream, put in a filtration plant and as discussed with yourself and Mr. Nagle, this would guarantee you a body of water which will at all times be clear and would give the job water of a temperature which is quite necessary for the use that this pool is to be put to. The piping would be so arranged as to utilise this filtration plant as a recirculating system which would eliminate the weekly emptying and filling of the pool, taking into consideration that the well water would be of a temperature which will come to the pool in the neighborhood of 60 degrees and would take considerable time for the water to warm up due to atmospheric conditions. We strongly recommend this change.

Our estimate for the job complete which we would guarantee for a period of a year against all mechanical and structural defects is Six Thousand Five Hundred Dollars ($6,500). The time of completion will be six weeks, weather permitting, or thirty-six working days. At the request of yourself, we further submit a price of $1.00 per cubic yard for all necessary backfill for the filling up to grade of all excess material necessary, it being understood that the excavation from the new pool is to be placed in the old pool area. Such necessary fill as is required to be taken from the present sand bank on the premises and placed where necessary.

This estimate is based and given as an alternate incorporating such suggestions as above mentioned as compared with the plans and specifications sent us. We feel that the foregoing recommendations would be of great benefit to the job and in turn bring about an economy of cost and operation. There will be a considerable saving in the cost of operation due to the fact that the deep well pump will have a 5 horse power motor as against the 2 horse power for recirculating and pumping purposes. If the suggestions above made are accepted and the contract awarded to us, a set of plans and specifications showing the changes will be sent you for your acceptance.

Respectfully submitted,

HASBROUCK COMPANY, Inc.

By

President

P.S. In discussing with you the specifications as regards paragraph 14 in reference to the well, you call for 35 gallons per minute during a twenty-four hours' continuous pumping. This we understand was not meant as a guarantee that the contractor was to supply 35 gallons a minute at a depth of 50 feet for we both agreed that there was no way humanly possible for anyone to guarantee the flow of water when digging a well through rock. As related to you, I have discussed the well proposition with the local well diggers and they feel that this can be done but that the result as called for can in no way be guaranteed. As we do not wish, to have any misunderstanding in this matter, we are again bringing it to your attention. In figuring the job according to your specifications, we have figured on
Captain Edwin P. Look, Jr.  

April 19, 1935

Driving an 8" well to a depth of 80 feet, but we cannot guarantee the flow. If the water is there, the pump will deliver the amount of water specified.

If any decision is arrived at by Monday, will you be good enough to telephone us so that we can make the necessary preparations and save time, as the question of time is an important factor for the completion of the job before Decoration Day.

H. C. Inc.
April 19, 1936

United States Department of the Interior
National Park Service
Navy Building
Washington, D. C.

Gentlemen: ATTENTION: MR. JOHN L. NAGLE, ASSISTANT CHIEF

We herewith submit for your consideration and acceptance our bid for the installation of a swimming pool at the home of President Roosevelt in Hyde Park, New York, according to the blue prints and outlined specifications mailed to this office under date of April 16, in the sum of Seven Thousand One Hundred Thirty Dollars ($7,130.).

Respectfully submitted,

HASBROUCK COMPANY, Inc.

M. F. Hasbrouck

By President
Excavation 400 yds @ 15" 4000
Gravel Placement, boards @ 80' 4000

Bulldozer $30 per day
Shovel 2000 yds + 150 man-hours

Hyd. dump truck $2.55/hr
1 bag mixer $1.25 per day

Crushed stone $2.25/ton Feb. 5th
Washed Sand $3.00/ton Feb

Concrete:
1 x 8 3/6" x 24' x 4' 10" Feb
2 x 4 2 x 8

Steel 870 sq/ton

Common labor 40/hr
Mechanics 120/hr
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<tr>
<th>Item</th>
<th>Contractor's Estimate</th>
<th>Our Estimate</th>
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<tr>
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<td>forms lining &amp; finish</td>
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### Materials

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<td>9&quot; T.C. tile</td>
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<td>Gravel fill</td>
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**Total:** 470

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<tr>
<td>Springboard and ladder</td>
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Labor.

Concrete 81 C.Y. @ 3.00  240
Steel  14000 lbs. @ 1.05  210
 Forms  1500 @ .30  450
Masonry  750 @ .10  80
Curved Corners  50
Tanking  150

1180

Flagstone  1370 sq. ft. @ .10  140  140
Pipe  730 lin. ft. @ 1.00  730  730
Copper flanging 60 lin. ft. @ .20  10  10
Excavation & backfill 350 C.Y. @ 100  350  350
FEDERAL SEABOARD TERRA COTTA CORP
10 EAST 40TH ST NEW YORK
SPECIFICATIONS

FURNISH EXTRUDED TERRA COTTA as required to produce the complete pool and scum gutter as indicated on the Architect's drawings or specified. All Terra Cotta shall be erected by the Contractor for the pool.

Expansion Joints: Concrete crib sides and bottom construction shall be provided with approved copper or lead bellows expansion joints which shall be filled solid with an approved elastic joint compound. The Terra Cotta joints are to be continuous at expansion joints.

Clearance: Clearance between concrete and back of Terra Cotta to be not less than 1", unless otherwise shown on Manufacture's drawings.

Anchors: Copper or other non-ferrous wire anchors shall be cast in concrete. Where 6 x 1/4" Terra Cotta units are used, space anchors 2 x 1/4" on centers alternating courses.

Setting: All Terra Cotta to be backed up solid with mortar leaving no voids. Bed and end joints to be buttered with mortar over the entire surface and tightly shoved.

Joints: Mortar joints to be not less than 1/8" or more than 3/16" wide and are to be struck when set to a slightly concave joint, using a standard glass or porcelain jointing tool.

Clay: All Terra Cotta shall be of best quality and shall be produced from selected fire clays, pulverized and screened to remove impurities, and shall have not less than 20% of grog or grit content, so as to produce a block of the required straightness, accuracy and finish.

Thickness: Blocks shall be not less than 1" thick at lugs, or as shown on approved Terra Cotta drawings.

Color: The surface finish of all Terra Cotta shall be a high fire ceramic glaze, of color or colors to be selected by the Architect, subject to the usual ceramic variation. The Architect reserves the right to use three different colors, but in no event more than one color on each block, except when marked on drawings.

Scope: The Manufacturer shall furnish all necessary scum gutter, cove, base, marking strips, depth or distance numerals, and standard size blocks for cutting where required.

Type: All standard extruded Terra Cotta shall be 8" high and 1 3/4" long, exclusive of mortar joints. The backs shall have lugs and be scored. Bed joints, ends and backs are to be free from glass so as to provide a proper bonding surface.

Straightness: The exposed glazed surface of each Terra Cotta block shall not vary at any point more than 1/16" from a true plane.

Grinding: So as to assure accuracy of size and end dimensions and uniform sharp parallel mortar joints, grind (after firing) the two sides of each block simultaneously on parallel carborundum wheels, then grind the ends square in like manner. The allowed tolerance in height of block shall not be more than 1/32" over or under the specified size.

Packing: All blocks shall be packed in suitable heavy corrugated containers, protecting the edges against chipping in transit or on the job. All Terra Cotta shall be carefully piled, under cover or covered with tarpsaulin, by the Pool Contractor.

Cutting: All cutting of blocks shall be done on the job by the Pool Contractor with a motor-driven carborundum saw - this to assure clean, straight joints.

Manufacturer: The extruded Terra Cotta shall be produced by the Federal Seaboard Terra Cotta Corporation, or by a manufacturer of established reputation, producing material equal in size, quality and color.

January 1, 1934.
Mrs. Henry Morgenthau Jr.,
2447 Kalorama Road, N.W.,
Washington, D. C.

Dear Mrs. Morgenthau:

I am submitting a bid this Saturday noon to Captain Edwin P. Lock Jr., at the White House, for the construction of a swimming pool for President Roosevelt on his Valkill property.

We are submitting this estimate in accordance first of all with a plan and specifications which the Department of Buildings and Structures have submitted to us, also asking us to submit an estimate on an alternate design on the pool itself, which would be more economical and still meet the requirements which they have set up.

On the alternate proposition, I am submitting an estimate on the pool as designed by Mr. Gilbert Fish, a Consulting Engineer of New York, who has had some connections with the Government in connection with pool construction.

I thought also I would submit an estimate on a pool of the same size as called for, but as constructed for you at Wicoopee, that is without the scum gutter, but providing weep holes for this purpose under the flagstone coping.

The reason I am writing you, is that I feel we can save money using the design which we used for you, but incorporate all the other features, that is of water supply, grading, flagstone walk etc., as called for by the specifications and plans which we have received.

I thought you might wish to talk this over with the President, if your pool has been satisfactory, knowing that he is familiar with it.

EVA/X

Very sincerely,

Edgar V. Anderson.

Some pool has been very satisfactory. It has no scum gutter, but instead weep holes. This was not expensive, but many other areas were pool and in view of the fact that yours is used by large numbers, Howard K. Wood, 329-30-31, will send it running cleanly with a scum gutter.
3419 Morrison St. N. W.  
Washington, D. C.

Re: Proposed Pool, Hyde Park, New York

Dear Sir:

We are pleased to quote you below on suitable equipment for sterilization of the swimming pool at Hyde Park, New York.

On one W&T Chloroclock as described in Technical Publication #77 attached we are pleased to quote you a price of FIVE HUNDRED FIFTY DOLLARS ($550.00) f.o.b. Hyde Park, New York. Quotation includes supervision of the installation by one of our engineers, initial supply of sterilizing solution and a testing outfit for determining residual chlorine in the pool water. Our engineer will also instruct the pool operator in the proper use of the chloroclock and testing equipment.

On one Rotor Chlorinator to feed chlorine gas as described in Technical Publication #167 and including services and accessories noted in the preceding paragraph we are pleased to quote a price of NINE HUNDRED SEVENTY-NINE DOLLARS ($979.00), f.o.b. Hyde Park.

Sterilizing solution for use with the Chloroclock is shipped by us in three gallon carboys from Bebbit, New Jersey.

Shipment of either of the above machines can be made one week following receipt of your order at our factory at Newark, New Jersey.

Quotations are subject to the terms and conditions printed at the foot of this sheet.

Please advise us if we can be of assistance,

Very truly yours,

R. C. Clement
WALLACE & TIERMAN CO. INC.
R.C. Clement, District Mgr.
THE W&T CHLORO-CLOCK

WATER supplies at camps, on private estates, at institutions and where consumption is relatively small, are readily chlorinated with the W&T chloro-clock. Small swimming pools can be adequately sterilized with this equipment.

The chloro-clock is designed to accurately feed small quantities of prepared sterilizing solution. Such solutions are generally available and, where the daily water consumption does not justify the installation of larger types of chlorine gas control apparatus, are to be recommended.

The apparatus operates on the displacement principle, the control being obtained from a clock-work mechanism which actuates an arm from which a displacing cylinder is suspended. The rate of solution feed is adjusted by means of a pendulum lever and is arranged so that the contents of the cylinder container can be discharged at varying rates as required from 20 hours to 8 days. A water supply under pressure feeds the small constant level box into which the solution drops. The same water supply also operates an injector which draws from the constant level box and applies the diluted sterilizing solution to the desired point of application.

The chloro-clock is started in operation by turning on the water supply and moving a lever which starts the clock mechanism in motion. Raising the weighted cylinder for filling the container jar automatically winds the clock mechanism.

Height: 67 in. Width: 12 in. Depth: 18 in.
Shipping Weight: 400 lbs.
Specifications

The equipment shall be a self-contained unit mounted on a cast-iron base and with suitable metal support. It shall be suitable for feeding a hypochlorite sterilizing solution of definite strength and shall operate on the displacement principle, the control being obtained from a clock-work mechanism which actuates an arm from which a displacing cylinder is suspended. The rate of feed of solution shall be adjustable by means of a pendulum lever so arranged that the contents of the cylinder container can be discharged at varying rates as required from 20 hours to 8 days.

Where the sterilizing solution must be applied against a positive pressure, the equipment shall be provided with an injector operated by an external water supply under pressure and drawing from a constant level float box so placed as to receive the sterilizing solution that flows from the cylinder container.

All parts of the equipment with which the chlorine sterilizing solution comes in contact shall be of materials resistant to the action of sterilizing solution. All parts of the clock-work mechanism shall be properly protected but easily accessible and so designed that raising the weighted displacement cylinder will automatically wind the clock mechanism.

Guarantee: The apparatus shall be guaranteed against all inherent mechanical defects for a period of one year from date of shipment from factory.

Height: 67 inches. Floor Area: 16 inches by 18 inches.

Shipping Weight: 400 pounds.

Partial List of W & T Chloro-Clock Installations

Water Supplies

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<th>Company</th>
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<tr>
<td>Delaware</td>
<td>Silt</td>
<td>Municipal Water Department</td>
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<tr>
<td>Indiana</td>
<td>Bethany Beach</td>
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<td>Kansas</td>
<td>French Lick</td>
<td>French Lick Springs Hotel Co.</td>
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<td>MA</td>
<td>Cummington</td>
<td>Forestry Fish &amp; Game Commission</td>
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<td>MA</td>
<td>Maple Plain</td>
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Swimming Pools

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the new W&T “Rotor”

VISIBLE VACUUM CHLORINATOR

Since the development of the Visible Vacuum principle of chlorinator operation some ten years ago, there has been an insistent demand for the application of this principle to units of low chlorine capacity. With the introduction of the “Rotor” Visible Vacuum Chlorinator this exclusive W&T method of chlorine control is available, with all its advantages, to water supplies as small as 10,000 gallons per day—to small swimming pools—and for other similar installations.

With the unique revolving Volumetric meter it is now a simple matter to secure accurate control of as little as .03 pounds of chlorine per 24 hours. Three interchangeable chlorine meters .03 to 0.5 pounds per 24 hours capacity .10 to 1.6 " " " " " .3 to 5.0 " " " " " cover the complete range from a minimum of .03 to a maximum of 5.0 pounds of chlorine per day and with variable speed control provide a feed ratio of 17:1 with any one meter.

A particularly desirable feature of this apparatus is the ease with which it can be converted from manual to semi-automatic (automatic start and stop) or full automatic (automatic start and stop and automatic proportioning of chlorine flows) operation in the field with the addition of a few accessories.

As with other Visible Vacuum chlorinators, the control parts are always in plain view under the glass bell jar. By simply removing this bell jar these parts are immediately accessible for cleaning, adjustment or repair. Minor irregularities in operation, should any occur, are immediately observed and corrected and have no opportunity to develop into serious difficulties requiring major repairs or factory overhaul.
Substitution of visible hydraulic compensation for mechanical chlorine pressure reducing devices eliminates one of the most prolific sources of chlorinator troubles and expense. With the chlorine metered under a vacuum, leaks are practically impossible, while the improved design allows the use of chlorine resistant materials—hard rubber, glass, silver, platinum, etc., in the construction of all parts coming into contact with moist chlorine.

In the past, over 4,000 Visible Vacuum chlorinators have established enviable records for dependability and satisfactory operation with low maintenance costs. Exhaustive experiment and field scale installations demonstrate that the new “Rotor” is in every way their equal in performance and economy of operation.

Specifications

The Chlorinator shall be of the Solution Feed Visible Vacuum Type in which the Chlorine is metered under a partial vacuum.

It shall be pedestal mounted and the working parts of the apparatus such as Chlorine Pressure Reducing Valve, Chlorine Meter and Vacuum Relief shall be mounted under a glass bell jar in a hard rubber tray provided with a water seal, and shall be plainly visible while in operation. Furthermore, all these parts shall be readily accessible without the necessity of removing any bolts or screws.

The chlorine pressure reducing and constant flow valve shall be of the float operated type, utilizing water as a diaphragm.

The chlorine meter shall be of the Revolving Volumetric Type (specify whether for hydraulic or electric motor operation) and shall be accurate to within 4% of the true delivery of chlorine on all flows within its working range.

Wallace & Tiernan Co., Inc., warrant for a period of one year after shipment that the apparatus shipped is free from defects in workmanship and materials, but its liability is limited to the replacement f. o. b. Newark, N. J., of the defective parts thereof.

Width: 19¼”; Depth: 23½”; Height: 54½”; Shipping Weight: 500-600 lbs.

At Your Service

In 41 District Offices and Service Headquarters, W&T maintain a nationwide field staff experienced in sanitary and industrial work. They are prepared to study and advise you on any problem pertaining to the application of chlorine or ammonia. Feel free to call on them.

Wallace & Tiernan
COMPANY, INCORPORATED
Manufacturers of Chlorine and Ammonia Control Apparatus
NEWARK, NEW JERSEY
the
PRIVATE POOL
and
PLUNGE

Harmonizing with the landscape—a foil for any creative plan the architect may advance or the owner's tastes dictate—a unique setting for any entertainment function, and a source of healthy sport and recreation—the outdoor pool is the "finishing touch" to any estate. The private plunge—that luxury of ancient royal families—returns to the modern American home—and swimming becomes a year round sport and recreation.

Regardless of other features, the beauty of a swimming pool lies in the appearance of the water and the cleanliness of the pool. Outdoor pools—and even indoor pools—exposed to sunshine invariably favor the luxuriant growth of the blue green algae—which are unsightly and objectionable to bathers.

Harmless as these growths are, they give the pool the appearance of being unclean and the water an objectionable off color—a dullness instead of a crystal brilliance. A beautiful pool can have its attractiveness very seriously marred by neglect in controlling biologic growths of this kind. If their development is not checked they may impart to the water a characteristic fishy or grassy odor which is most objectionable to bathers. Chlorine, besides being an economical sterilizer, is the one most effective way of preventing these algae growths.

Private pools which are not used for several days can be kept free of algae by operating the recirculating pump a short period each day and applying chlorine to the recirculated water in sufficient quantities to control growths. The expense is slight.
Clear, sparkling—PURE water is, however, an essential, for health as well as appearance. It is a condition taken for granted by the owner when he commissions the architect and today the private pool owner insists that he, his family and his guests "Swim in Drinking Water."

The addition of clean water to the pool is not alone sufficient. Provision must be made not only to sterilize the water as added, but to maintain, regardless of contamination disseminated by the bathers or introduced from other sources, an absolutely pure water in the pool itself. Health authorities everywhere are unanimous in saying that only by chlorination is this absolute purity secured—because only chlorination can provide residual sterilizing action that persists in the pool itself.

"From all available information the addition of chlorine . . . by use of proper apparatus is today the most satisfactory method of pool disinfection. It is possible not only to completely disinfect the entire body of water in the pool with chlorine, but also maintain in the pool water at all times a residual amount of disinfectant to sterilize immediately any dangerous pollution disseminated by bathers . . . The Committee recommends the use of chlorine . . . ," so states the report of the Joint Committee on Bathing Places of the American Public Health Association and the Conference of State Sanitary Engineers, after five years intensive study.

Just as chlorination is the preferred method of swimming pool disinfection, so W&T apparatus is the preferred chlorinator.

"Swimming Pool water is essentially drinking water," said the Surgeon General of the U. S. Army—"and as such must be measured by drinking water standards."
No finer criterion of the dependability of W&T apparatus could be found than this—200,000,000 people throughout the world today rely on W&T chlorinators for protection from water borne diseases. Thirty-five hundred American municipalities sterilize their drinking water with it—over two thousand five hundred swimming pools are chlorinated with it.

Andrew W. Mellon, Secretary of the U. S. Treasury; G. W. Williams, President Marmon Motor Co.; S. L. Doheny, Jr. and innumerable others of national prominence find W&T apparatus the ideal method for the sterilization of their private swimming pools.

Harvard University, Yale, the Universities of Southern California, Washington, Georgia, Chicago, Illinois—are just a few of the leading schools that have investigated the subject with every facility at their command and have chosen W&T chlorinators for their swimming pools.

pools (Foltz, Osler & Thomson, Architects), are chlorinated with W&T apparatus. Another prominent New York architect, John F. Jackson, specified W&T equipment on the James-town Y. M. C. A.; Colgate University and Tonawanda High School swimming pools. "Who's Who" of architecture could be no more impressive than the list of those architects who, not once but repeatedly include W&T chlorinators on swimming pools of their creation.

Operation of W&T chlorinators is simplicity itself and may be placed in the hands of the gardener or other outside man. No technical knowledge is necessary.

Not only is chlorination the most effective means of pool disinfection but it is in every respect the most inexpensive. The average pool water is completely sterilized at a cost of less than fifty cents a million gallons.

W&T service is the direct responsibility of more than 100 graduate engineers. The nearest of our forty-two District Offices is at your service.

SOME W&T PRIVATE SWIMMING POOL INSTALLATIONS


SWIM IN DRINKING WATER

WALLACE & TIERNAN

MANUFACTURERS OF CHLORINE AND AMMONIA CONTROL APPARATUS

NEWARK, N. J.

BRANCHES IN PRINCIPAL CITIES

PRINTED IN U.S.A.
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
EASTERN DIVISION, BRANCH OF ENGINEERING
WASHINGTON

April 16, 1935.

Hasbrouck Company,
101 Park Avenue,
New York City.

Gentlemen:

Following recent conversations relative to the construction of a new swimming pool at the Hyde Park estate, for the President, I am pleased to transmit herewith a set of blueprints and a draft of the specifications indicating the general lines along which it is desired a pool be built. Please understand that the information contained herein is intended to cover a complete installation, in working order, and any minor omissions in the drawings or specifications will have to be supplied. Please also understand that this work is of a purely personal nature, and the National Park Service is not officially connected with it. I am handling the engineering work personally at the request of Captain Edwin F. Lock, Jr., White House.

Some of the drawings were hastily prepared, and the figured dimensions should govern wherever possible instead of scaled distances.

It is desired that your bid covering the construction of the pool as indicated by the accompanying papers be in Captain Lock's hands at the White House by noon, Saturday, April 20. A bid is desired on the indicated construction; but if you so elect, you may submit an additional bid for any design which may occur to you as being better adapted to local conditions. Please be sure to include with your alternative bid a description of any departures from indicated construction.

Any questions or any requests for additional information may be addressed to me until Thursday at 5:00 P.M., after which time to Captain Lock at the White House.

Should you wish to visit the estate to examine the site of the work, you will be permitted to enter the grounds upon presentation of this letter. A test pit has been dug on the site of the proposed pool which indicates that the earth is a sandy gravel at a depth of 11 feet.

As this is in no way a Government contract, the right is reserved to discuss any matters with any of the invited bidders after the time set for opening, or to award the contract as may best suit the needs and convenience of the President's family.

Very truly yours,

John L. Magle,
Assistant Chief.
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
EASTERN DIVISION, BRANCH OF ENGINEERING
WASHINGTON

Mr. Gilbert D. Fish,
50 West 50th Street,
New York City.

Gentlemen:

Following recent conversations relative to the construction of a new swimming pool at the Hyde Park estate, for the President, I am pleased to transmit herewith a set of blueprints and a draft of the specifications indicating the general lines along which it is desired a pool be built. Please understand that the information contained hereon is intended to cover a complete installation, in working order, and any minor omissions in the drawings or specifications will have to be supplied. Please also understand that this work is of a purely personal nature, and the National Park Service is not officially connected with it. I am handling the engineering work personally at the request of Captain Edwin P. Lock, Jr., White House.

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Very truly yours,

John L. Nagle,
Assistant Chief.
James Baird Company,
810 - 18th Street, N.W.,
Washington, D. C.

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Following recent conversations relative to the construction of a new swimming pool at the Hyde Park estate, for the President, I am pleased to transmit herewith a set of blueprints and a draft of the specifications indicating the general lines along which it is desired a pool be built. Please understand that the information contained hereon is intended to cover a complete installation, in working order, and any minor omissions in the drawings or specifications will have to be supplied. Please also understand that this work is of a purely personal nature, and the National Park Service is not officially connected with it. I am handling the engineering work personally at the request of Captain Edwin F. Lock, Jr., White House.

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Very truly yours,

John L. Nagle,
Assistant Chief.
1. WORK TO BE DONE. - The work to be done under this contract consists in furnishing all labor, machinery, equipment and materials and constructing thereon in accordance with these specifications and the accompanying plans, a swimming pool complete.

The work comprises, among other things, the following major items:

- Excavation and grading, drainaing of existing pool, reinforced concrete, a new wall and pump sufficient for a complete circulating system, a purification system, plumbing and drainage, a pump house, a spring board and ladder, and all incidental work necessary to complete the pool and place it in operation.

2. LABOR. - The Contractor shall be responsible and shall conform to all regulations in regard to the employment of labor. In general, all labor in the vicinity of Hyde Park shall be used to the maximum extent.

3. CONTRACT DRAWINGS. - The following drawings form a part of and are supplementary to these specifications:

   - Plans and Details - Two Drawings
   - Photostat of An Architectural Perspective
   - Photostat of Purification System - Two Drawings

4. WORKING DRAWINGS. - The Contractor shall prepare all detailed working drawing necessary for the manufacture of the material which shall be submitted for approval. The working drawings shall be in sufficient detail to facilitate the erection of the material in the field.

5. EXCAVATION AND GRADING. - All excavation shall be to the depth indicated on the drawings. Any overdepth in foundation excavation shall be backfilled with concrete at the Contractor's expense unless such overdepth shall have been previously ordered. All backfill shall be deposited in 6-inch layers thoroughly tamped and puddled if directed.

The Contractor shall grade all of the area within six feet of the outer edge of the flagstone walk. Beyond the edge of this grading the banks shall slope 1-1/2 to 1 to the natural ground.

Soil and landscape work is not included in this contract.

6. REINFORCED CONCRETE. - All concrete shall develop a strength of 3000 pounds per sq. inch in 28 days. It shall be mixed in the approximate proportions of 1:1:1/2:3:1/3, but shall contain not less than seven (7) bags of cement per cubic yard of concrete measured in place.

The forms for all exposed surfaces of concrete shall be lined with masonite or some other approved material. The seam gutter and curbs and pavement shall receive a smooth hard trowel finish.

All reinforcing steel shall be deformed bars rolled from new steel billets made by the open hearth process.
7. JOINTS. - Copper expansion joints shall be placed as indicated on the drawings and all joints shall be thoroughly sealed with an approved mastic material.

8. SPRINGBOARD & LADDER. - All pipe in the ladder and spring board frame shall be galvanized. The diving board shall be of clear vertical grain Oregon Pine in one piece free from flaws and it shall be covered with coco mat for its full length.

9. PAINT. - All exposed surfaces of concrete of the pool shall be painted with an approved paint of an approved color. The paint shall be suitable for the purpose and as many coats as necessary for a first class paint job shall be applied. The decks of all walls shall be damproofed with an approved material.

10. DRAINING OLD POOL. - The side walls of the existing pool shall be punched through in at least four places to permit the free passage of sub-surface water.

The pool shall then be filled with excavated material from the new pool and shall be brought to the grade indicated by the contours on the drawings.

11. PUMP HOUSE. - The Contractor shall design a pump house of sufficient capacity to house all of the equipment necessary for the operation of the pool. The heating system shall be self-contained and independent. The Contractor shall provide sufficient space for future expansion.

The pump house shall be neat in appearance and shall harmonize with the surrounding landscape.

12. FLAGSTONES. - The flagstones shall be 1-1/4 inches wide and 2 inches thick and shall be laid in random ashlar of approximate sizes indicated on the drawings.

13. PLUMBING. - Cast-iron bell and spigot water pipe conforming to Federal Specification WF-P-421, Type I, Class 180 shall be used for all water supply and re-circulating pipes and for the pool drain up to the 8-inch gate valve. All joints in cast iron water pipe shall be made with lead and jute in the most approved manner, the lead to be not less than 2 inches deep, to be run with one pouring and to be caulked flush with the bell. All fittings for cast iron water pipe shall conform to AWS A, Specifications, Class E.

Extra heavy cast iron soil pipe, conforming to Federal Specification WF-P-441, Class A, shall be used for all piping above the floor of the pump house and at such other points as may be noted on the drawings. All joints in cast iron soil pipe shall be made with lead and jute in the most approved manner.

Galvanized wrought iron pipe, conforming to Federal Specification WF-P-441, Class A, shall be used for all piping above the floor of the pump house and at such other points as may be noted on the plans. All joints in wrought iron pipe shall be made with properly cut tapered threads with all burrs removed and pipe ends reamed. Pipe joint compound shall be applied to the male threads only and care shall be taken that none of it gets inside.
of the pipe.

The main outlet drains shall be Jossam, Type 396 H with chromium plated brass tops.

The rain gutter drains shall be Jossam, Type 2255 H all brass with chrome plate top.

The inlets for the recirculating system shall be Jossam, Type 2255 H with cast iron bodies and chrome plated brass strainers.

The brass goose neck inlet nozzle for the well supply pipe shall be of approved design.

14. WELD. - The Contractor shall drill an 8-inch deep well at the location for the pump house noted on the drawings, the well to have a capacity of not less than 35 gallons per minute during 24 hours continuous pumping. The Contractor shall submit complete specifications of the well he proposes to drill, but in general it must be cased with wrought iron casing to solid rock and provision be made to prevent the entrance of surface contamination. An approved strainer shall be provided if required. The bid shall be based on a wall 80 feet in depth.

15. DEEP WELL PUMP. - The deep well pump shall have a capacity of 35 gallons per minute against the static and friction head necessary to deliver the water to the pool and shall be designed to operate continuously for 24 hour periods.

The pump cylinder shall be all brass, with galvanized wrought iron drop pipe and an or galvanized iron pump rods and shall be arranged so that the plunger and all valves can be withdrawn without removing the cylinder from the well.

The pump head shall be of the enclosed gear, self oiling type and shall be driven by a 250 volt, 60 cycle single phase motor of suitable size through a "V" belt or silent chain.

The Contractor shall submit detailed drawings and specifications of the pumping equipment he proposes to furnish for approval before proceeding with the installation.

16. CIRCULATING PUMP. - The circulating pump shall be of the single stage centrifugal type, direct connected to a 250 volt, 60 cycle single phase motor, and shall have a capacity of 35 gallons per minute. The pump shall be made integral with the motor frame and shall require no base plate or flexible coupling, the impeller being mounted directly on the motor shaft. The Contractor shall submit detailed drawings and specifications of the pump he proposes to furnish for approval.

17. CHLORINATOR. - The Contractor shall provide chlorinating system of the type shown on the accompanying photostat. The solution shall be fed by means of an adjustable motor driven pump, the piping to be so arranged that the solution can be injected into either the supply pipe from the well or the discharge pipe from the circulating pump. Detailed drawings and specifications of the chlorinating system proposed to be furnished shall be submitted for approval.
18. ELECTRICAL. - This work consists of the furnishing and installing of the following material and equipment:

1. A feeder in an underground conduit indicated on the drawing. The feeder shall be of rubber covered lead covered cable of sufficient capacity for the motors to be supplied. The feeder shall connect to the existing 220 Volt, 60 cycle alternating current system in the present dwelling house through a fused safety switch in order to properly protect the feeder. The proper location of the safety switch shall be determined in the field.

2. A safety switch and a starter for each motor in the pump house. The starter shall be fully enclosed and of proper design to meet the requirements of each individual motor. The starters and safety switches shall be installed in an approved location and complete in every detail.

3. The required number and size of motors suitable for operating the particular equipment. The motors shall be of the general purpose type. All details of construction and performance shall be in accordance with the latest standards of the A.I.E.E. and N.E.M.A.

4. All wire, cable and their connections to the various equipment.

The entire installation shall conform in every detail with the following rules and requirements:

(a) The National Electric Code of the National Board of Fire Underwriters.

(b) The rules and requirements of the local Electric Company supplying the current.

(c) The rules and regulations of the local Electric Code.

(d) The Standardization rules of the American Institute of Electrical Engineers.

(e) The Standardization rules of the National Electrical Manufacturers Association.
## SUMMARY OF BIDS ON
**HYDE PARK SWIMMING POOL**

<table>
<thead>
<tr>
<th>Bidders</th>
<th>Bid on Pool as Designed</th>
<th>Bid on Alternate Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hasbrouck Company, Inc.,</td>
<td>$7,120.00</td>
<td>$6,500.00</td>
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<tr>
<td>101 Park Avenue, New York, N.Y.</td>
<td></td>
<td></td>
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<tr>
<td>James Baird Company, Inc.,</td>
<td>7,620.00</td>
<td>7,113.00</td>
</tr>
<tr>
<td>Otis Building, Washington, D.C.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Edgar V. Anderson,</td>
<td>8,459.00</td>
<td>*7,998.00</td>
</tr>
<tr>
<td>35 Market Street, Poughkeepsie, N.Y.</td>
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(*) Deductions: Anderson's alternate design.
- Omitting sump gutter & using weep holes - - - - - - $287.00
- Substituting bluestone for Crab Orchard - - - - - - 405.00
- Total Deductions - - - - - $992.00
- Total, 7,006.00
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<tr>
<td>Hackerman Company, Inc.</td>
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<td>$ 6,900.00</td>
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<tr>
<td>New York, N.Y.</td>
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<tr>
<td>James Wood Company, Inc.</td>
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<td>7,120.00</td>
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<tr>
<td>Otto Building,</td>
<td></td>
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<tr>
<td>Washington, D.C.</td>
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<td></td>
</tr>
<tr>
<td>Edgar V. Anderson,</td>
<td>8,450.00</td>
<td>7,990.00</td>
</tr>
<tr>
<td>22 Market Street,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poughkeepsie, N.Y.</td>
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(*) Deductions: Anderson's alternate design. Omitting sump gutter & using weep holes: $287.00 Substituting bluestone for Crab Orchard: $492.00 Total Deductions: $7,068.00
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<tbody>
<tr>
<td>Hashbrouck Company, Inc., 101 Park Avenue, New York, N.Y.</td>
<td>$7,150.00</td>
<td>$6,500.00</td>
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<td>James Baird Company, Inc., Otis Building, Washington, D.C.</td>
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<td>$7,115.00</td>
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<tr>
<td>Edgar V. Anderson, 25 Market Street, Poughkeepsie, N.Y.</td>
<td>$8,459.00</td>
<td>* $7,998.00</td>
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</tbody>
</table>

(*) Deductions: - Anderson's alternate design.
- Quitting spray gutter & using weep holes: $587.00
- Substituting bluestone for gravel orchard: $405.00
- Total Deductions: $2,992.00

Total Bids: $23,647.00

Net Bids: $20,655.00
James Baird & Co
Pool as per specification 7620 cc
Alternate design 7113 cc
April 20, 1935

Captain E. P. Lock, Jr.
Executive Mansion
Washington, D. C.

Dear Sir:

We propose to furnish all labor, materials, tools, power, appliances, etc. to complete the construction of the Swimming Pool at Hyde Park, New York, in accordance with plans and specifications furnished by your office for the sum of SEVEN THOUSAND SIX HUNDRED TWENTY ($7,620.00) DOLLARS.

If the circulating line can be used as a fill line, using the circulating nozzles for fill heads, deduct ONE HUNDRED ($100.00) DOLLARS.

With reference to the alternative plan of using the stream water instead of deep well water for filling the pool, we feel that the cost of such equipment to properly filter and treat the stream water would be considerably more expensive than the cost of the deep well, and the pump, and that the turbidity of the stream water at times would be such that it would be impossible to use the water without providing equipment for settling.

We wish to thank you for the opportunity of bidding this job, and hope that we can be of assistance to you.

Very truly yours,

JAMES BAIRD COMPANY

[Signature]
Vice President

HSM:M
Code Authority
March 29, 1936

Mr. Lorenzo S. Winslow, Architect
1800 E Street, N.W.
Washington, D.C.

Dear Mr. Winslow:

We propose to furnish all labor, materials, tools, power, appliances, etc., to complete the proposed swimming pool at Hyde Park, New York, in accordance with your plans, and verbal instructions modifying these plans, especially as pertains to the mechanical layout, on the following bases:

1. For constructing the complete swimming pool together with all mechanical work, exclusive of a recirculating system for the pool water, and heating equipment, for the sum of

   $(7,333.00)

2. For constructing the complete swimming pool together with a recirculating system for the pool water, and recirculating pump, and leaving provisions for future installation of heating equipment, the sum of

   $(7,608.00)

3. For constructing the complete swimming pool including the recirculating system for the pool water and the heating system, the sum of

   $(8,763.00)

We list below the possible changes which could be made in the present plans without materially changing the design or usefulness of the pool; which would be deductions from the above lump sum bids:

a. Eliminate masonite lining for forms. $100.00
b. Redesign of concrete footings and reinforcing. 175.00
c. Omit outlet boxes for future lamp standards. 50.00
d. Reduce area of flagstone. 170.00
e. Eliminate copper expansion joint at junction between wall and footing and in bottom slab joints. 100.00
Edgar V. Anderson  Poughkeepsie

Pools as designed  $8459.00
Alternate design  7998.00
Reduction
Omit scum gutter to use
woop holes  587.00
Substitute bluestone
for Crab Orchard  405.00  992
Net low  7006.00
Cap. Edwin P. Look,
The White House
Washington, D. C.

Dear Sir:—

I propose to construct the Swimming Pool in accordance with the plans and specifications which you have furnished, for the sum of $8,459.00.

As an alternate, we are pleased to quote a price according to the design prepared by Mr. Gilbert D. Fish of New York, of $7,998.00.

Both of the above quotations include a complete finished job, except that we have not figured on finished grading and seeding, and also we have provided the extra fill which would be necessary to bring the new grade over the old tank, up to the proposed finished lines. We have figured only on using the excavated material for filling purposes.

We have also figured on the Artesian Well 80' deep with 8' casing, the well to be double cased and grouted to prevent in seepage.

I have figured on a pump house with concrete foundations, frame walls and roof covered with wood shingles, painting only the trim on this building, but not painting nor staining the shingles. If the shingles were to be stained a dark Creasote color, it would probably cost about $12.00 extra.

In either case, according to Mr. Fish's suggestion, we could do away entirely with the scum gutters and construct weepholes, using flagstone coping, which would finish the top of the concrete walls, placing these weepholes at about 4' intervals, each weep hole to be about 2' high and 8' long, occurring at the water line of the pool. In general, all the weep holes are under the flagstone paving, along the outside of the pool, and we place in gravel fill to take care of the water which would normally go into the scum gutters. I have used this scheme myself very satisfactorily in the pool which I built for Mr. Henry Morgenthau Jr., six years ago.

For omitting of the scum gutters, and providing weepholes in either design, we can make a deduction of $587.00.

I would suggest as a substitute for the Crab Orchard paving, the use of North River bluestone flagging, laid in the same pattern and manner specified, at a saving or deduction in price of $405.00.

Very truly yours,

Edgar V. Anderson
General Contractor
23 Market Street
Poughkeepsie, N. Y.
April 19th, 1935.
April 18, 1935

Captain Edwin P. Lock, Jr.
White House
Washington, D.C.

OUTDOOR SWIMMING POOL, HYDE PARK, NEW YORK

Dear Captain Lock:

At Mr. Nagle's request, I have gone over the
plans and specifications for the proposed pool and find them fully
in accordance with good practice and also economical. I would,
however, suggest a few minor changes for consideration, as listed
later in this letter.

Further in accordance with Mr. Nagle's request,
I have called in a general contractor, Mr. E. V. Anderson of
Poughkeepsie, who has gone over the plans with me and is preparing
to submit a proposal in Friday afternoon's mail. I understand that
Mr. Anderson will bid on plans and specifications without exception,
and will also submit an alternate bid based on the proposed modi-
fications listed below.

Mr. Anderson has been established in general con-
tracting for a long time and is very well known. He is located
nearer to Hyde Park than any other contractor having suitable ex-
perience in swimming pool construction, and of course he is thoroughly
familiar with local conditions including the local labor market.
He constructed the Vassar College Sports Building and Swimming Pool
Building, with which this office was professionally connected two
years ago, and a large concrete pool which he built as part of that
operation was a very creditable bit of monolithic concrete construction.
About five years ago he built Mr. Morgenthau's swimming pool a few
miles from Poughkeepsie, and I understand that the President's
family have done considerable swimming in that pool.

The suggested modifications are as follows:

1. Omit all expansion and construction joints
to permit pouring the entire pool in one continuous operation. I
think that this is wise in the case of a small pool and affords
better protection against loss of water due to seepage. All concrete
pools built under our supervision, except some large ones, have been
poured monolithic.

2. Change wall section as indicated on attached
sketch, making footings integral with wall, reducing the amount of
vertical wall reinforcement, but avoiding any spacing greater than
12", turning water-face reinforcement into heel of footing for greater
security, and reducing wall thickness to 8".
3. Omit scum drain pipes for economy, providing narrow channels through the rim at intervals to permit surface drainage into soil adjoining pool. This device has been found to work very well, and has the advantage of avoiding a permanently slippery condition of the rim which is apt to accompany the use of the rim as a scum gutter.

4. Round off the four vertical corners of the pool to avoid stress concentration with possible resultant cracks.

5. Add integral waterproofing to the concrete mix to improve workability and density. At very slight extra cost this so improves the pouring properties that it greatly helps to avoid voids when pouring thin walls with closely spaced reinforcement, and also makes a denser concrete.

6. Apply no cement finish to floor slab. Screed the floor and float finish if necessary for reasonable smoothness, but do not trowel. Rub down inside face of wall with barborcunum.

The above suggestions are partly for quality and partly for economy. I think they should somewhat improve the result without adding to the cost, and I hope that the estimates will show some cost saving in favor of the changes. It is understood that in case Mr. Anderson handles this job, I will personally visit the site to inspect reinforcement and forms before concrete is poured and will witness the mixing and pouring of the concrete in case it is done in a single operation.

Hoping that you will receive satisfactory proposals and that my comments may prove to be of some value,

Yours very truly,

[Signature]

CC — Mr. John L. Nagle
Mr. E. V. Anderson
Swimming Pool
For
HYDE PARK, N.Y.
Want to ask you about something?

Swimming Pool Data
8" Well 3.25/ft
$4500 for casing

6" Well 2.75/ft
$2500 casing

Pump Well & Pump House

3772 4997 8/28
June 6, 1934

BUDGET ESTIMATE
OF
HYDE PARK SWIMMING POOL

1. Excavation, Pumping & Rough Grading ........ $ 878.00
2. Concrete Swimming Pool ......................... 2,710.00
3. Native Stone Coping ............................. 252.00
4. Plumbing & Drainage .............................. 425.00
5. Well, Pump House & Pump ....................... 882.00
6. Superintendence & Insurance .................... 200.00

Profit - 10% ...................................... $ 5,873.00

Total .................................................. $ 6,394.00
Dear Mr. Gugler:

In compliance with your request to find some method to reduce the cost of the Hyde Park Swimming Pool, I have made some changes and believe the cost will now be:

1. Excavation & Rough Grading .......... $380.00
2. Concrete Swimming Pool ............ 1,928.00
3. Native Stone Coping .................. 108.00
4. Plumbing & Drainage .................. 550.00
5. Superintendence, Insurance & Overhead 500.00
6. Cleaning Site & Finish Grading ...... 400.00

$5,468.00

The above figures have been reached by omitting the rounded corners on the pool, reducing the depth slightly, changing the profile of the gutter, reducing the width of the coping, fitting the coping at random, reducing the pipe sizes, omitting the rubbing of concrete and having the clearing of the site and finish grading done by the gardeners. The changes recommended will not reduce the usefulness of the pool in the slightest.

The pool equipment now existing can be transferred to the new pool. If the existing house water supply can be used, it will cost from $200.00 to $400.00. If found inadequate, a new well, well house and pump may be installed for a minimum of $700.00.

We will charge only what the actual costs amount to, without any profit. We have not as yet investigated the local conditions sufficiently to guarantee the above figures, but we can confirm them at once if you feel the price is satisfactory.

Many thanks for the fun of working with you on this project.

Yours very truly,

SCHELLING-BUSCH, INC.

George Schelling

Mr. Eric Gugler
101 Park Avenue
New York, N. Y.
Note:

The attached figures do no include the sodding over the fill in the old pool, the moving of trees or bushes, or other
landscape...
June 22nd, 1954

Dear Mr. Gugler:

I asked for estimates from two standard pool erectors after giving them full information on owner and property, and the lowest of these two figures increased my estimate to $6,290.00 for the same work, an increase of about $2,800.00.

Yours very truly,
SCHELLING-BUSCH INC.

George Schelling
P. O. Box 146
Nashville, Tenn.
March 21st, 1935.

Mr. Lorenzo S. Winslow,
1800 "E" Street, N.W.,
Washington, D.C.

Dear Mr. Winslow:

Your letter received and the quantity of approximately 700 sq. ft. of stone tells me that your design would build a pool 25' x 75' with a 3'0" border around the top.

Allowing a 12" wide coping and 2'0" for walk, using 2" stone for the border or coping and 1" stone for the walk design, all this stone could be delivered to the location you mention, fully cut to design ready for installation for the sum of approximately Three Hundred Fifty ($350.00) Dollars.

If you design steps leading into the pool instead of ladders which has been very satisfactorily done on some very nice jobs recently, this would be extra.

The above figure includes your selection of colors and the same quality of stone as used at the White House.

Two photographs of work recently done are enclosed for your use.

Assuring you confidence in the matter and with kindest personal regards, I am

Respectfully yours,

CRAB ORCHARD STONE CO. INC.

By Earl H. Price
Mr. Lorenzo S. Winlow

March 29, 1935

Of the above deductions we believe that it would be unwise to accept the deduction for the elimination of the masonite inasmuch as we feel that the use of the material will be worth considerably more than One Hundred Dollars to the job in appearance and sanitary condition.

We hope that the above estimate is satisfactory to you, and that we can be associated with you on this project.

Very truly yours,

JAMES BIRT COMPANY

[Signature]

Vice President
1 - 42" CLEAR WATER CHAMBER
PRESSURE TYPE
SWIMMING POOL CLARIFICATION
FILTER TYPE S
WITH BRASS HEADER,
COMPLETE WITH JENKINS VALVES
FOR INLET, OUTLET, WASH, WASTE
AND REVASH, WITH BRASS WASH
OUT PIPE AND 7 GRACED LAYERS
OF FILTER MATERIAL TO CONFORM TO
A. W. W. ST'DS, DELIVERED TO WHITE
HOUSE, SET IN FILTER ROOM, READY
TO BE CONNECTED UP TO PRESENT
SYSTEM. (CONNECTION TO PRESENT SYSTEM
TO BE MADE BY GOVERNMENT)

$641.-
1. NO CONCRETE FILL
The type "S" filter—a modern design—needs no concrete fill—cheaper to install—lighter in weight—requires no buried manifolds and laterals—a quality filter.

2. LONGER LIFE
The type "S" filter eliminates pipe manifolds and laterals. Its arched distributor hood is made of the same thickness of material as the filter tank. No part of it is buried in hard concrete. Its underdrain life is equivalent to the life of the filter tank.

3. SCAIFE & SONS
OAKMONT, PA.
Bull. 213

WM. B. SCAIFE & SONS CO.

MANUFACTURERS OF

Water Softening and Purification Systems
Gravity and Pressure Filters

EXECUTIVE OFFICES AT OAKMONT, PA.

OAKMONT, PA.
SPECIFICATIONS
FOR
HYDE PARK SWIMMING POOL

June 6th, 1954
SPECIFICATIONS
FOR
HYDE PARK SWIMMING POOL

MATERIALS:

1. Portland Cement

Portland cement shall be of American manufacture conforming to the "Standard Specifications for Portland Cement" (Serial Designation CS-50) of the American Society of Testing Materials, and subsequent revisions thereof.

2. Fine Aggregate

Fine aggregate shall consist of sand having clean, hard, durable, uncoated grains, free from deleterious substances.

Fine aggregate shall range in size from fine to course within the limits indicated below, percentage by weight:

- Passing through No. 4 sieve ............... 100%
- Passing through No. 60 sieve; not more than 50%
- Passing through No. 100 sieve, when screened dry, not more than 5%

Volume removed by sedimentation, not more than 5%

3. Coarse Aggregate

Coarse aggregate shall consist of crushed stone, gravel, air-cooled blast furnace slag, or other approved inert materials with similar characteristics, or combination thereof, having clean, hard, durable, uncoated particles, free from deleterious matter.

Coarse aggregate shall range in size from fine to course within the following percentages, by weight:

- Passing a 1" sieve ................ Not less than 80%
- Passing a 1/2" sieve ............... Not more than 75%
- Not less than 40%
- Passing a No. 4 sieve ............. Not more than 5%

Bank or pit-run aggregate in its original state shall not be used.

4. Mixing Water

Mixing water shall be free from oil, acid, and injurious amounts of vegetable matter, alkalies or other salts.

5. Steel Reinforcement

Steel rods or bars used for reinforcing shall be billet-steel of intermediate grade or rail-steel.

Reinforcement bars shall conform to the area and equivalent sizes shown on or called for on the general plans or detailed drawings.

PROPORTIONING:

6. General

The unit of measure shall be the cubic foot. Ninety-four pounds (94 lbs.), one (1) sack or one-fourth (1/4) barrel of portland cement shall be assumed as one (1) cubic foot.

7. Measuring Ingredients

The method of measurement shall be such as to secure the specified proportions in each batch. The aggregates shall be measured separately by volume or weight. In volume measurement, the fine aggregate and the course aggregate shall be measured loose, as thrown into the measuring device, due allowance being made for bulking. The water shall be so measured as to insure the desired quantity in successive batches.
HYDE PARK SWIMMING POOL

June 6th, 1984

8. Water-Cement Ratio:
The proportioning of materials shall be based on the requirements for a plastic and workable mix containing not more than six (6) gallons of water per sack (94 pounds) of cement to produce a concrete having a 28 day compressive strength of 5000 pounds per square inch. This quantity of water must not be exceeded. Water in the aggregate must be included in the quantity specified and subtracted from the amount added to the mixture.

9. Moisture in Aggregate:
Moisture in the aggregate shall be measured by methods satisfactory to the Engineer which will give results within one pound for each 100 pounds of aggregate.

10. Slump:
The slump shall be within the following limits: minimum, 2 inches, maximum 5 inches. Slump tests shall be made whenever directed by the Engineer.

11. Workability:
The mixture shall be such as to produce concrete that can be worked readily into the corners and angles of the forms and around the reinforcement without excessive spading. The workability will be controlled by adding or deducting fine or coarse aggregate but in no case shall the amount of coarse aggregate be such as to produce harshness in placing or honey-combing in the structure.

That combination of fine and coarse aggregate which will produce the desired workability will vary with the grading of the aggregates, but in no case shall more than one part of fine to one part of coarse be used.

12. Trial Batches:
Full-sized trial batches shall be made in the mixer, using the aggregates selected for the job to establish the correct proportions of the mix to give proper workability and maintaining the water-cement ratio and slump as specified. An initial trial batch shall be made based on the proportion by dry compact volume of 1:8:3, proper allowance being made for loose measurement and the effect of bulking due to moisture. If the desired workability is not obtained, then the combination of the fine and coarse aggregates shall be adjusted within the limits specified until the mix meets with the approval of the Engineer

MIXING:

13. Machine Mixing:
The mixing of concrete shall be done in a batch mixer of approved type, which will insure a uniform distribution of the materials throughout the mass, so that the mixture is uniform in color and homogeneous. The mixer shall be equipped with suitable charging hopper, water storage, and a water-measuring device controlled from a case which can be kept locked and so constructed that the water can be discharged only while the mixer is being charged.
The entire contents of the drum shall be discharged before recharging. The mixer shall be cleaned at frequent intervals while in use. The volume of the mixed material per batch shall not exceed the manufacturer's rated capacity of the mixer.

14. Time of Mixing:
The mixing of each batch shall continue not less than one minute after all the materials, including the water, are in the mixer.

PAGE 2
Hand Mixing: Hand mixing will not be permitted.

Retempering: The retempering of concrete which has partially hardened, that is, remixing with or without additional cement, aggregate, or water will not be permitted.

DEPOSITING CONCRETE:

General: Before depositing any concrete, all debris shall be removed from the space to be occupied by the concrete, all steel reinforcing shall be secured in its proper location, all forms shall be thoroughly wetted except in freezing weather, and all form work and steel reinforcing shall be inspected and approved by the Engineer. Forms shall not be oiled.

Handling and Placing: Concrete shall be handled from the mixer to the place of final deposit as rapidly as practicable by methods which shall prevent the separation or loss of the ingredients. It shall be deposited in the forms as nearly as practicable in its final position to avoid rehandling. It shall be so deposited as to maintain, until the completion of the unit, a plastic surface approximately horizontal. The concrete shall be placed in a manner that will avoid accumulation of hardened concrete on the forms or metal reinforcement. Under no circumstances shall concrete that has partially hardened be deposited in the work.

Compacting: Concrete during and immediately after depositing shall be thoroughly compacted by means of suitable tools. For those walls or inaccessible portions of the forms, where rodding or forking is impracticable, the concrete shall be assisted into place by tapping or hammering the forms opposite the freshly deposited concrete. The concrete shall be thoroughly worked around the reinforcement, and around embedded fixtures and into corners of the forms.

Protecting and Curing: Exposed surfaces of concrete shall be protected from premature drying by being covered with burlap or sand, which must be kept continually wet by sprinkling or by other methods that may be approved by the Engineer. The damp burlap or sand shall be placed as soon as the concrete is hard enough not to be marred by the process, and the sprinkling must continue for a period of not less than ten days, and, in case the Engineer requires it, for a longer period.

Temperatures: Concrete when deposited shall have a temperature not below 50° Fahrenheit and not above 100° Fahrenheit. In freezing weather, suitable means shall be provided for maintaining the concrete at a temperature not lower than 50° Fahrenheit, for not less than 72 hours after placing, or until the concrete has thoroughly hardened. The methods of heating the materials and protecting the concrete shall be approved by the Engineer. Salt, chemicals, or other foreign materials shall not be mixed with the concrete for the purpose of preventing freezing.
22. Depositing Against Other Concrete:
Before depositing new concrete on or against concrete which has hardened, the forms shall be repositioned, the surface of the hardened concrete shall be thoroughly cleaned of foreign matter and laitance, and saturated with water, and shall be roughened as required by the Engineer. The new concrete placed in contact with hardened or partially hardened concrete shall contain an excess of mortar to insure bond. To insure the excess of mortar at the juncture of the hardened and the newly deposited concrete, the cleaned and saturated surfaces of the hardened concrete, including vertical and inclined surfaces, shall first be flushed with a coating of neat cement grout against which the new concrete shall be placed before the grout has attained its initial set.

23. Floor Finish:
After the concrete has been brought to the established grade, by means of a strikeboard, it shall be floated with a wood float in a manner that will thoroughly compact it and provide a smooth, even surface. The surface shall then be lightly steel troweled. The troweling should be followed with a light brushing with a hair brush to give a non-slip finish.

24. Wall Finish:
Immediately after the forms are removed, all projections and irregularities on the exposed surfaces shall be removed and all cavities neatly filled with a 1-1/4 portland cement and sand mortar. Plastering of the surface will not be permitted. The surface shall be finished by wetting and thoroughly rubbing with a carborundum brick. The top of the wall should be left gritty to prevent slipping.

FORMS:
25. General.
Forms shall conform to the shape, lines and dimensions of the concrete as called for in the plans. Lumber used in the forms for exposed surfaces shall be dressed to a uniform thickness, and shall be free from loose knots or other defects. Joints in forms shall be horizontal or vertical. For unexposed surfaces, rough lumber may be used. Lumber once used in forms should have nails withdrawn, and surfaces to be in contact with concrete thoroughly cleaned before being used again.

METAL REINFORCEMENT:
Metal reinforcement, before being placed, shall be thoroughly cleaned of mill and rust scale and of coatings that will destroy or weaken the bond. Reinforcement appreciably reduced in section shall be rejected. Where there is delay in depositing concrete, reinforcement shall be reinspected and, when necessary, cleaned.

27. Bending.
Reinforcement shall be carefully formed to the dimensions as indicated on the plans. Gold bends shall be made around a pin having a diameter of six or more times the least dimension of the reinforcement bars.

28. Straightening.
Metal reinforcement shall not be bent or straightened in a manner that will injure the material. Bars with kinks or bends not shown in the plans shall not be used. Heating of reinforcement will be permitted only when the entire operation is approved by the Engineer.
29. **Placing:**

Metal reinforcement shall be accurately positioned and secured against displacement by using annealed iron wire of not less than No. 18 gauge or suitable clips at intersections, and shall be supported by concrete or metal chairs or spacers, or metal hangers, unless otherwise shown on the plans. The minimum clear distance between any bar and the nearest concrete face shall not be more than 2 inches to insure protection against moisture.

Wire mesh used in the floor slab shall be lapped not less than six (6) inches on all sides and securely wired.

Wherever it is necessary to splice bar reinforcement otherwise than as shown in the plans, the character of the splice shall be decided by the Engineer on the basis of safe bond stress and the stress in the reinforcement at the splice.

**JOINTS:**

50. **Construction Joints:**

When necessary to provide construction joints not indicated on the plans, such joints shall be located and formed so as to not impair the strength and to least impair the appearance of the structure. Where conditions require, the joints shall be reinforced as directed by the Engineer in order to secure the necessary bond strength.

51. **Expansion Joints:**

Expansion joints in the floor and walls shall be spaced as shown. The joints shall be filled with an approved tar or asphaltic filler which will not run in hot weather and become brittle when cold nor be affected adversely by water. The wall joints shall be provided with a crimped copper strip to serve as a water stop.
Dear Aunt Book;

corry not to be here to see you. Here are a few details about the place.

You can take dirt off the top of the hill if you want to...but I imagine it has a stone base...and the President has put on a lot of crushed stone a number of times to make the road hard, so the cars do not go down out of sight in the early spring. If they take the dirt off the hill it will have to be fixed after with a good base and gravel.

I want the shrubs moved and planted again by a man that knows his business, the roots can easily be damaged and when they are replanted they must have good soil, peat moss and fertilizer. It is too dangerous to leave them out of the ground for two or three weeks. I just as soon have them planted as they are taken out back by the fence at the shop. The Woodland Free Service men will probably move them as cheaply as any one...and they know the business. They have planted the trees for me.

Mr. Barnes or Prichard. Phone North 8655

The men can get drinking water from an outside faucet over by the garage. If they do not like this water they can get some at the President's farm at the end of our lane leading on to the highway.

The pump house is to go where we decided when you were here.

The front line of the pool is to be in line with the porch of the house.

The electric wire from the pole in front of the shop has to go through the circle back of the house and back of that button will tree. There will be a cellar under the new addition so the electric wires can not go there.

The water level of the brook in July and Aug and Sept. is below the cement dam under the bridge...No water goes over the dam in summer.

They will need to know this when they put the pipe down if they are to get the water for the pool from the brook. Below the bridge there is only a few inches of water in the summer.

Mrs. Roosevelt's little gas stand (to give people work, no profit) is a short way from our gate...If any of the men want food Nellie will be glad of the job...Gas and oil also.

I will be home Friday of this week.

Sandy Cook
<table>
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<tr>
<th>Item</th>
<th>Contractors Estimate</th>
<th>Our Estimate</th>
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<tr>
<td>General Conditions</td>
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<td>Concrete, including Steel,</td>
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<td>Forms, Lining &amp; Finishing</td>
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<tr>
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<tr>
<td>Pump House</td>
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<td>Paint</td>
<td>60.00, Other figures</td>
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<tr>
<td>Sterilizer</td>
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<tr>
<td>Well &amp; Pump</td>
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\text{Totals} \quad \begin{array}{c}
\text{Contractors} \\
\text{Estimate} \\
\text{Our} \\
\text{Estimate}
\end{array}
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\text{\$7,138.00} \\
\text{\$6,670.00}
\end{array}
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\[
\text{\text{\$6,825.00} Check within \$155.00}
\]
Mr. Lorenzo S. Winslow, Architect
1800 N Street, N.W.
Washington, D. C.

Dear Mr. Winslow:

We propose to furnish all labor, materials, tools, power, appliances, etc., to complete the proposed swimming pool at Hyde Park, New York, in accordance with your plans, and verbal instructions modifying these plans, especially as pertains to the mechanical layout, on the following bases:

1. For constructing the complete swimming pool together with all mechanical work, exclusive of a recirculating system for the pool water, and heating equipment, for the sum of

Seven Thousand Three Hundred Fifty Three ($7,353.00)

2. For constructing the complete swimming pool together with a recirculating system for the pool water, and recirculating pump, and leaving provisions for future installation of heating equipment, the sum of

Seven Thousand Six Hundred Eighty Seven ($7,687.00)

3. For constructing the complete swimming pool including the recirculating system for the pool water and the heating system, the sum of

Eight Thousand Seven Hundred Sixty Three ($8,763.00)

We list below the possible changes which could be made in the present plans without materially changing the design or usefulness of the pool, which would be deductions from the above lump sum bids:

A. Eliminate masonite lining for forms. $100.00
B. Redesign of concrete footings and reinforcing. 175.00
C. Omit outlet boxes for future lamp standards. 50.00
D. Reduce area of flagstone. 170.00
E. Eliminate copper expansion joint at junction between wall and footing and in bottom slab joints. 100.00
Mr. Lorenzo S. Winslow

March 29, 1935

Of the above deductions we believe that it would be unwise to accept the deduction for the elimination of the masonite inasmuch as we feel that the use of the material will be worth considerably more than One Hundred Dollars to the job in appearance and sanitary condition.

We hope that the above estimate is satisfactory to you, and that we can be associated with you on this project.

Very truly yours,

JAMES BAIRD COMPANY

[Signature]

Vice President
Pool - Hyde Park

Bid No. 1 - Complete pool with all mechanical
except recirculating piping and pump and
heating equipment.

1. General Conditions, Equipment, Insurance, Shed, Suspension $200
2. Excavation $397
3. Concrete, steel, forms $2573
4. Masonite Form Lining $160
5. Drain Tile & Gravel $88
6. Damp proof outside of walls - 2 coats mastic $50
7. Finish Pool Wells, Floor, Swim Gutter $195
8. Plastic Expansion Joints $45
9. Copper $170
10. Wreck old pool walls $50
11. Pump House $150
12. Ladder, Spring Board $170
13. Paint - Inside of pool - (2 coats, By State) $60
14. Electric Service $220
15. Hot Stone $785
16. Mechanical (Furnace, Gas, circulating) $1175 $270
17. Sterling, 110, Hypoth. $1600
18. Wells & Pump

Total $7,533
 Bid No. 2  
 Total Bid No. 1  
 Add. Circulating Piping Pump  
 $7,333 - 150 - 125 -  
 $7,408

 Bid No. 3  
 Total Bid No. 2  
 Add. Boiler, Burner, Tank  
 30: Brick Stack  
 $7,608 - 1075 - 30 -  
 $8,763
Warren F. Feller  
Water Well Driller  
Rhinebeck, New York

March 16, 1935

Dear Sir:

$1 Job:  
Capacity 27 Gallons per minute - Depth to 96 ft.

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Quantity</th>
<th>Price</th>
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<tr>
<td>Myers VS860 M Self Oiling Power Head equipped with 1/2 Century M. P. Motor-60 Cycle 110 V.A.C. Single Phase</td>
<td>1</td>
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<tr>
<td>Myers Fig. 2897 Brass Lined double acting cylinder</td>
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<td>60.00</td>
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<tr>
<td>size 2 3/4&quot; x 12&quot; x 54&quot;</td>
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<tr>
<td>Fig. 2747-2 Silent Line Check Valve</td>
<td>1</td>
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<tr>
<td>80 ft. Fig. 2762 with rectangular Wood Rod complete with all couplings, size 2 3/4&quot; x 1 1/16&quot;</td>
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<td>37.60</td>
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<tr>
<td>60 ft. 3/8&quot; Galv. drop pipe</td>
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<tr>
<td>Requiring 3&quot; Galv pipe discharge from pump to pool @ 49¢ per foot</td>
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<td>$394.20</td>
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Captain E. P. Lock Jr.  
White House  
Washington, D.C.
Warren F. Feller  
Water Well Driller  
Rhinebeck, New York  
Phone 264-7  

March 10, 1936

#2 Job  Capacity 36 Gallons per minute - Depth to 95 ft.

1 Myers V2960 H Pump with 2 H. P. Motor like #1 Head  $264.00
1 Fig. 2595 Cylinder size 3 3/4" x 12" x 56"  73.00
1 Fig. 2747- 2" Check Valve  12.00
80 ft. Fig. 2762 Wood Rod, size 3 1/4" x 1 3/8"  59.20
80 ft. 4" Galv. Drop Pipe  58.60  $411.80

Necessary length of 3" Discharge pipe from pump to pool @ 49¢ per foot

The above are two separate estimates of the swimming pool job at Hyde Park.

Very truly yours,

Warren F. Feller
Captain E. P. Locke  
White House  
Washington, D. C.

Dear Sir:

As per our conversation I have studied the pump situation in reference to your purposed Swimming Pool at the Val-Hill Cottage and have given it very serious consideration. I have checked through several makes of pumps bearing in mind the use to which you will put them. Namely they will have to be operated for a period of twenty-four hours steadily without any stops, and I am inclining an estimate for two pumps that I can recommend.

The Hoosier Heavy Duty is a low speed pump with a 1 1/8" stroke. In my opinion the wear will naturally be considerable less on this pump than any other pump.

The Myers pump has a 1 1/2" stroke with a double action cylinder which gives you the same capacity as the Hoosier pump using a two horse power motor instead of a five horse power motor on the Hoosier. I believe this pump will also give you very good service but is a faster speed pump than the Hoosier.

You will find below approximate estimates on both Hoosier and Myers pumps, both of these pumps have a capacity of 1600 gallons per hour.

Hoosier

Figure 500 Heavy Duty Pump 1600 gallons with five H. P. motor

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 1 1/2&quot; x 30 all brass 1 1/8&quot; stroke cylinder</td>
<td>60.00</td>
</tr>
<tr>
<td>60 ft. 2 1/2&quot; wood rod</td>
<td>75.00</td>
</tr>
<tr>
<td>50 ft. 4&quot; drop pipe</td>
<td>75.00</td>
</tr>
<tr>
<td>50 ft. 2 1/4&quot; discharge pipe, fittings &amp; excavation</td>
<td>40.00</td>
</tr>
<tr>
<td>100 ft. 3 wire lead covered cable No. 4 installed</td>
<td>100.00</td>
</tr>
<tr>
<td>Total labor for plumber, electric work for pump and piping</td>
<td>1040.00</td>
</tr>
</tbody>
</table>

Myers

Office 558  
Residence 377  
Poughkeepsie, N. Y.  
March 19, 1935
E. P. Locke  March 16, 1935  J. L. Finhel

Myers

Figure 2636 1000 gallons per hour discharging in open tank

- two horse power motor...
  1- Double action all brass cylinder 12" stroke 3/8 x 5/8"
  50 ft wood rod
  80 ft 4" drop pipe
  50 ft. 2¼" discharge pipe including excavating and
  pipe fittings
  100 ft 3 wire No. 8 lead covered cable installed
  Total plumbers and electrical work for pump
  all piping and wiring

$260.00  
$75.00  
$55.00  
$55.00  
$40.00  
$75.00  
$100.00  
$8070.00

I trust this is the information you desire, and if I can be of further service to you please call on me as I am pleased to assist in any way possible.

Trusting to hear from you, I am,

Very truly yours,

Joseph L. Finhel

Joseph L. Finhel

JLP: 2
<table>
<thead>
<tr>
<th>Subject:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>6 hours</td>
<td>18 board.</td>
</tr>
<tr>
<td>897 sq. ft.</td>
<td>1615 sq. ft.</td>
</tr>
<tr>
<td>6.18</td>
<td>6.39</td>
</tr>
<tr>
<td>7.30</td>
<td>4.20</td>
</tr>
<tr>
<td>612 sq. ft.</td>
<td></td>
</tr>
</tbody>
</table>

**Heating Plant:**
- Operating Cost:
- Pump Equipment:

**Tabulation:**
- Sheet:
- Checked by:
- 3/21/31
- Initial and Date:
United States
Department of the Interior
Office of National Park Service
Eastern Division, Branch of Plans and Design
Computation Sheet

Subject: Operating Costs

24 hour heating basis:

Oil for Burner: \( 2.5 \times 0.6 \times 7 \times 24 \) = 5.96

\( \frac{1}{2} \) HP Burner: \( 600 \times 0.6 \times 24 \times 7 \times 24 \) = 0.67

\( \frac{1}{4} \) HP Burner: \( 400 \times 0.6 \times 24 \times 7 \times 24 \) = 0.67

Total: 7.30

7.30 lb heat pool over 24 hour period.

18 hour heating basis:

Oil for Burner: \( 2.5 \times 0.6 \times 7 \times 18 \) = 5.96

\( \frac{1}{2} \) HP Burner: \( 600 \times 0.6 \times 18 \times 7 \) = 5.7

\( \frac{1}{4} \) HP Burner: \( 400 \times 0.6 \times 18 \times 7 \) = 5.7

Total: 6.98

6.98 lb heat pool over 18 hour period.

To operate well pump:

3 HP. Motor on pump: \( 2.5 \times 0.6 \times 24 \times 0.47 \times 0.175 \) = 4.20 lb heat pool.
Subject: Estimated Costs on Pumping Equipment

1 - Fantauzi Model 133 9 Deep Well pump with 3 HP motor 230 V. A.C. 1Ph with 12' intake 200 gph pump @ 50' head $408.00

1 - 3", 1/2", 1/6" Fantauzi Model "ERB" double acting brass fluid cylinder $48.00

1 - 3" Inner Dack Valve $12.00

80' Hollow Steel Anchor Rod $41.00

80' Steel Drops pipe $43.00

Safety control $15.00

Wiring 8' motor 100' 3" 15' $15.00

Pump bells 1 pool 100', 3" pipe @ 35' $38.00

$612.00
<table>
<thead>
<tr>
<th>Subject:</th>
<th>Estimated Cost for Heating Equipment for Heating Pool Water.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-0-9-0</td>
<td>3000 lb. Red Steel Boiler</td>
</tr>
<tr>
<td></td>
<td>25 ft. x 75 gpm. 920-4 Inc. Tank</td>
</tr>
<tr>
<td></td>
<td>Piping: 200', 2&quot; @ 31/4&quot;</td>
</tr>
<tr>
<td></td>
<td>3&quot; Hot Ilmulator (Burn Co.)</td>
</tr>
<tr>
<td></td>
<td>Wiring &amp; Furnace &amp; Ilmulator</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$811.00</td>
</tr>
</tbody>
</table>

| 3-0-12-0 | 3000 lb. Red Steel Boiler                                  |
|         | 25 ft. x 75 gpm. 920-4 Inc. Tank                          |
|         | Piping: in store                                          |
|         | 3" Ilmulator (Burn Co.)                                  |
|         | Wiring & Furnace                                         |
|         |                                                            |
|         | $897.00                                                   |
Subject: Swimming Pool.

24 hours to heat pool
75°-Altitude Temp.
65° Water Temp.
40,000 gal pool capacity.

Using an 3 Redflash Oil Burning Boiler
2370 x 140 = 337,000 B.T.U.

3-0-9-0

25" Oil No. 2 Cap. 3 burner. = 3 gal of oil per min.

Boiler 54 1/4" long 45 1/4" being 63' high.

151/2% efficiency 1 gal oil = 98,000 B.T.U.

\[
\begin{align*}
337,000 & \div 98,000 = 3.45 \text{ gal/hr} \\
3.45 & \times 24 \text{ hr} = 82.8 \text{ gal in 24 hr} \\
82.8 & \div 18 \text{ hr} = 4.6 \text{ gal/hr} \\
\end{align*}
\]

Using an 3 Redflash Oil Burning Boiler
5-0-12-0

3200 x 140 = 448,000 B.T.U.

68.5° Oil No. 2 Cap. 3 burner. = 3 gal of oil per min.

Boiler 72 1/2" long 46 1/4" being 63' high.

\[
\begin{align*}
448,000 & \div 98,000 = 4.57 \text{ gal/hr} \\
4.57 & \times 24 \text{ hr} = 109.7 \text{ gal in 24 hr} \\
\end{align*}
\]
Operating Costs.

Gal. pumps to drain pool 14 gal. per hr @ .75 = .98
3/4 HP motor 600 w @ .05 kw = .6 kw
" Scie Pump 600 w @ .9 kw = .6 kw
Cost to drain pool per hour = $1.064
6 = $63.84
3 HP. motor on well pumps.
3 HP = 2700 w @ .5 kw @ .07 = .175 kw per hr
2700 w = .45 kw drain pool.
Pool Heating

6 hours to heat pool water
71° & above temps.
50° water pumps.
40,000 gal pool capacity.

\[
\frac{600}{6} = \frac{7000 \text{ gal per hr}}{8.33}
\]

50,000 gal water per hr
25° rise
1,500,000 B.T.U. required.

SWP 7-0 #4 Ideal Heat Pearl Oil Burner Boiler
93.70% B.T.U. = 1,465,000 B.T.U. output.
100% oil, 60°, main burner capacity = 121/2 gal hr.

136 in. long, 60° wide, 65 in. deep.

70% efficiency
1 gal hr = 98,000 B.T.U.

\[
\frac{1,465,000 \text{ B.T.U.}}{98,000} = \frac{14 \text{ gal oil per hr}}{6 \text{ hrs}}
\]

8 gal oil to heat pool.
Boiler Equipment

5-10-17-0 Ideal Red Heart Tube:

- Red Barner & 375 gal Strong Tank: $300
- Pipeing 100' @ $3: $30
- 3' Hot Water circulator (Tank B): $72
- Wiring & Burner & circulator 100' @ $15: $15

Total: $167
Estimate - H.P. Swimming Pool

Excavation - 333 cu. yds. @ 1.00 $333.00
Remf. Concrete - 64 cu. yds. @ 250° $1600.00
Gravel or sand fill 32 cu. yds. @ 2.00 $80.00

Stone coping - 150 sq. ft
Stone walks - 590 sq. ft
Symphys only 740 “ ” @ .10 $75.00
Concrete fill - 44 sq. yards @ 1.00 $44.00

Construction of Scum Gutter
132 linear ft at .50 $65.00

16 - Recessed gutter drains - 3” @ 10° $160.00
2 - Floor drains - 6” - base @ 15° $30.00

2 - Gate valves - 6” @ 3.50
2½” @ 10.00 $65.00

Water meter head $20.00
2. Jamming job on ladders @ 2500 5000

- Spring board. 3000

130 linear feet of 6" T.C. drain pipe @ $25.00 3250
   (Including excavation and fill)
50 linear feet of 2½" copper pipe @ $10.00 500
   (Including excavation and fill)

Drilling 5" Well - 100 ft. deep $350.00

Pump equipment $200.00

Well and Pump House $100.00

Total cost $3427.00

Contingencies 10% $342.70

$3769.70

Morning Shrubbery
Gooding, cleaning, dollars back - grass seeding,
Electricity
Sketch of a Proposed Outdoor Swimming Pool

For entire document please check with the architect on duty.
Dear Sir:

We propose, subject to accompanying conditions, to furnish the
Architectural Terra Cotta glazed finish
for Swimming Pool Building
to be erected for
at Hyde Park, N.Y.,
as per drawings by Lorenzo S. Winslow Architect
for the sum of Five hundred ninety_- dollars ($590.00)
the material to be delivered tailboard of trucks at curb of building site.

This estimate is for Federal Seaboard Terra Cotta Corporation standard type seat gutter and one 8" fascia course. See illustration on accompanying plate.

Respectfully submitted,

[Signature]

FEDERAL SEABOARD TERRA COTTA CORPORATION

10 EAST 40TH STREET

Lorenzo S. Winslow, Esquire, NEW YORK

United States Department of the Interior,
1800 E Street, N.W., Washington, D.C.

March 21, 1935.
Lorenzo S. Winslow, Esquire,
U.S. Department of the Interior,
1800 E Street, N.W.,
Washington, D.C.

Dear Mr. Winslow:

It was a great pleasure to receive your letter of March 20th.

We are also pleased to submit herewith a proposal for furnishing our type of seat gutter for swimming pool.

This proposition is on the basis of one course only of Terra Cotta below it.

We have also included cost of stencilled wave ornament as shown on our detail, enclosed.

Thanking you cordially for the opportunity of bidding.

Very truly yours,
FEDERAL SEABOARD TERRA COTTA CORPORATION,

H. L. King,
Sales Manager.
TYPICAL ELEVATION AND SECTION OF TERRA COTTA CLUM GUTTER WITH SOLID-ROD TERRA COTTA FACIA COURSES AS APPLIED TO CONCRETE SWIMMING POOL CONSTRUCTION.

LONGITUDINAL SECTION THRU TYPICAL TERRA COTTA FACED POOL.

FEDERAL SEABOARD TERRA COTTA CORP.
10 EAST 40TH ST. NEW YORK
TERRA COTTA SPECIFICATIONS
FOR SWIMMING POOL CONSTRUCTION.

January 1, 1935.

FURNISH EXTRUDED TERRA COTTA as required to produce the complete pool and scum gutter as indicated on the Architect's drawings or specified. All Terra Cotta shall be erected by the Contractor for the pool.

Expansion Joints: Concrete curb sides and bottom construction shall be provided with approved copper or lead bellows expansion joints which shall be filled solid with an approved elastic joint compound. The Terra Cotta joints are to be continuous at expansion joints.

Clearance: Clearance between concrete and back of Terra Cotta to be not less than 1", unless otherwise shown on Manufacturer's drawings.

Anchors: Copper or other non-ferrous wire anchors shall be cast in concrete. Where 6"x1 1/4" Terra Cotta units are used, space anchors 3'6" on centers alternating courses.

Setting: All Terra Cotta to be backed up solid with mortar leaving no voids. Bed and end joints to be buttered with mortar over the entire surface and tightly shoved.

Joints: Mortar joints to be not less than 1/8" or more than 3/16" wide and are to be struck when set to a slightly concave joint, using a standard glass or porcelain jointing tool.

Clay: All Terra Cotta shall be of best quality and shall be produced from selected fire clays, pulverized and screened to remove impurities, and shall have not less than 50% of grog or grit content, so as to produce a block of the required straightness, accuracy and finish.

Thickness: Blocks shall be not less than 1" thick at lugs, or as shown on approved Terra Cotta drawings.

Color: The surface finish of all Terra Cotta shall be a high fire ceramic glaze, of color or colors to be selected by the Architect, subject to the usual ceramic variation. The Architect reserves the right to use three different colors, but in no event more than one color on each block, except when marked on drawings.

Shapes: The Manufacturer shall furnish all necessary scum gutter, cove, base, marking strips, depth or distance numerals, and standard size blocks for cutting where required.

Type: All standard extruded Terra Cotta shall be 8" high and 1'4" long, exclusive of mortar joints. The backs shall have lugs and be scored. Bed joints, ends and backs are to be free from glaze so as to provide a proper bonding surface.

Straightness: The exposed glazed surface of each Terra Cotta block shall not vary at any point more than 1/16" from a true plane.

 Grinding: So as to assure accuracy of size and end dimensions and uniform sharp parallel mortar joints, grind (after firing) the two sides of each block simultaneously on parallel carborundum wheels, then grind the ends square in like manner. The allowed tolerance in height of block shall not be more than 1/32" over or under the specified size.

Packing: All blocks shall be packed in suitable heavy corrugated containers, protecting the edges against chipping in transit or on the job. All Terra Cotta shall be carefully piled, under cover or covered with tarpaulin, by the Pool Contractor.

Cutting: All cutting of blocks shall be done on the job by the Pool Contractor with a motor-driven carborundum saw - this to assure clean, straight joints.

Manufacturer: The extruded Terra Cotta shall be produced by the Federal Seaboard Terra Cotta Corporation, or by a manufacturer of established reputation, producing material equal in size, quality and color.
April 2, 1935

My dear Mrs. Roosevelt:

We have made a detailed study of the Hyde Park swimming pool and arrived at what we believe to be a fairly accurate cost estimate. We have also received a bid from the James Baird Company, which built the White House pool. Its bid is based upon doing the work at cost and without profit. Its prices on materials are based upon list prices less dealers' discounts which amount to as much as 40% on some items. A comparison between the Baird Company's basic bid and our own figures on the items covered is attached. If our office were doing the work, we would add at least $1,000 for overhead and contingencies. Baird Company has added $200.

We agree with the proposed deductions B, C, D & E that they have suggested to bring the basic bid to $6,858.00.

This does not include a circulating system for the chlorinators or the necessary additional grading to finish the job.

These two items are estimated as follows:

- Circulating system and pump: $1,000.00
- Finish, grading & planting: $500.00

This brings the total cost without heating to $8,718.00.

We would recommend the circulating system for the chlorinators very strongly. I doubt if the chlorinator would prove satisfactory without it. It would be necessary to draw down the pool and pump water in every time chlorination was necessary, and then one would not be sure of the chlorine distribution. The circulation system would insure even distribution. Also the operating cost of the small circulating pump would be much less than that of the large well pump.

A heating plant would be very easily attached to the circulating system should you decide to do so at a later date. The estimated cost of the heating plant is $1,156.00. I am informed that
the temperature of the well water is around 40 degrees. I doubt if the air will warm it sufficiently. However, it would be worthwhile trying the pool without the heater and adding it later if found necessary.

We believe the pool as designed represents the least outlay to insure satisfactory operation and minimum upkeep.

Respectfully yours,

E. P. Lock
E. P. LOCK, JF.,
Captain, C. E.

Mrs. Franklin D. Roosevelt
The White House.
1. Pool 2338.00
2. Well + Pump house 885.00
3. Electric Wiring 180.00
4. Plumbing (3" + 8" pipes, etc) 435.00
5. Excavation 475.00
6. Drain tile 85.00
7. Expansion joints rubber 115.00
8. Wrecking old pool 50.00
9. Dam proofing 50.00
10. Scum gutter + drains 500.00
11. Supervision + bus etc 300.00
12. Contingencies 200.00

Total 5613.00

210.00

7/7/13
2:44 PM (5/13)
Extra Items

1. Pipe & valves  240.00
2. Chlorinifug system  250.00
3. "  "  "  " (pump & circulator) 275.00
4. Masonite  160.00
5. Finish Pool wall  195.00
6. Painting  60.00
7. Flagstone Walk  200.00
8. Spring board + ladders  120.00

9. Heating system  1155.00
10. Additional grading  600.00
Dear Fred,

If you wish to do this, I will have $2,000.00 to help.

N.E.

From

The White House

Washington
Summary

1. Bare Pool  $561.30
2. Pool with chlorinator  $610.80
3. Pool + circulating  $637.90
4. Paint work & finish of  $711.30
5. Finish Pool with grading & Heating system  $8668.00

Please give back to Capt. Luke
ILLUSTRATIVE AND DESCRIPTIVE OF
Swimming Pool Drains and Fittings of Every Character
Highest Quality and Guaranteed Products

BLAKE SPECIALTY CO., Rock Island, Illinois

Also manufacturers of Grease Traps — Roof, Shower, Garage, Hospital, Floor and Industrial Drains and Special Plumbing Fittings—including an Extensive Line of Carrier Chairs, Hangers and Drainage Fittings for Wall Hung Closets, Lavatories and Urinals.

Write for Catalog—

Copyright March, 1905—Blake Specialty Co.

Printed in U. S. A.
BLAKE—Modern Swimming Pool Equipment

Modern swimming pools are being very rapidly installed all over the country, and in order to have them function properly as a health producer they must be installed and operated in a sanitary manner.

On page three is shown a design of a modern swimming pool equipped with Blake Fittings that have been especially developed for this purpose.

A general arrangement of all fittings and piping, together with a description of the recommended equipment and operation of the pool, is given on opposite page.

Design of Blake Swimming Pool
The design shown is for a 20 x 60-foot pool, which is, at present, almost a standard pool for pools built both indoors and outdoors where space is limited. Much larger Pools are being built where space permits or requirements demand it.

The depth of various pools vary to suit the conditions of the bathers. No standard for this is possible.

A 20 x 60-foot pool of average depth holds about 50,000 gallons of water.

Arrangement for Piping
The arrangement of piping shown is adapted for use with any type of apparatus where the water is heated, purified and used over and over again.

Water Supply: The tank is initially filled by passing the water through the sterilizing apparatus and heats into the tank through pipe C and the inlet fittings 202 or 203, at the two ends of the pool, below the surface of the water, thereby producing a good distribution.

Water Outlet: The water is circulated out of the tank into the heating and sterilizing apparatus through the bottom outlet drain 511 and the pipes D. This arrangement, in combination with the inlet connections, produces an ideal circulation in the pool.

Scum and Floor Drains: The scum which accumulates on the surface is drained off into the sewer through the scum gutter drains 701 and pipe B. The water from the floor is drained through drains 202 or 203, also into pipe B.

By removing the strainer from these drains, access to this pipe is had for removing any stoppage that may be caused by the scum. The pipe D is connected to the inner side of a trap and gives a free connection to the sewer at all times without any intermediate valves.

Sewer Connections: By opening the valve, the pipe F leading from drain 511 and closing the valve in pipe E, the pool can be emptied into the sewer. These valves are easily accessible from the manhole shown.

Vacuum Piping: Two conveniently located vacuum box connections 204C are shown. These are arranged to receive a plug attached to the end of the hose. These pipes are connected to any suitable vacuum pump.

Operating Equipment
The following is a general outline of the necessary equipment for operating pools:

Filtration: In order to meet the requirement of clean water, it becomes incumbent to have filters. The quartz type appears to give the best results. The filtering area should be one square foot for every 1200 gallons of pool capacity, thereby filtering all the water in the pool every 12 hours. Arrangements should be made to wash the filters into the sewer every 24 hours.

Heating: The temperature of the pool should be kept from 68° to 72° F., and a suitable heater should be installed for the purpose.

The difference in temperature assumed between the pool, the flow line, and the return line, taken in connection with the quantity of water in the pool, gives the total heat loss, from which a suitable heater can be figured. Automatic temperature controlling devices are very essential to the economic operation of a modern pool.

Sterilizing: There are three well developed sterilizing processes, all of which accomplish the desired results when rightly handled. They are as follows:

Ultra Violet Ray Process: The Ultra Violet Ray Process acts like sunlight and consists of passing water through containers in which the water comes in close contact with Ultra Violet Rays thrown off by Quartz Vapor Arc Lamps. These rays destroy the pathogenic germ life present in the water.

Ozone Process: The Ozone Process consists of producing Ozone in a container by means of electricity and discharging it into the water, which becomes impregnated with it and the bacteria is thus destroyed.

Chlorine Process: The Chlorine Process consists of dosing the water, after it leaves the filter, with a predetermined amount of liquid chlorine. Chlorine has been known as a very high-grade destroyer of bacteria. There are several automatic appliances for feeding the proper amount of chlorine into the water.

Circulation Pump: A motor-driven turbine pump is best suited for circulating the water. It should have sufficient capacity for handling the entire contents of the pool in eight hours.

Vacuum Pump: A standard motor-driven vacuum pump should be provided, with sufficient capacity to operate a 2-inch hose.

Recommended Fittings for 20 x 60-Foot Pool

Screwed Piping:
8 2-inch 701C Scum Gutter Drains
8 2-inch 202C or 203C Floor Drains
4 2-inch 202C or 203C Inlets
2 4-inch 511C Circular Bottom Drains
2 2-inch 204C Vacuum Connections
Bell and Spigot Piping:
8 2-inch 701B Scum Gutter Drains
8 2-inch 202A or 203A Floor Drains
4 2-inch 202A or 203A Inlets
2 4-inch 511A Circular Bottom Drains
2 2-inch 204C Vacuum Connections
BLAKE
SWIMMING POOL FLOOR AND INLET DRAINS
Completely Adjustable

The Blake Floor and Inlet Drains are adjustable vertically 1-inch, and have a tilting adjustment of 15° in any direction. These movements permit the surface of the strainer being placed level with the pool floor or wall, no matter how it slopes or how inaccurate the pipe connections are made.

Strainers are removable for cleaning.

A lead sheet is caulked into the top of the fitting, so as to prevent a seepage around it.

Red brass strainers, furnished either plain, polished or nickel-plated. Furnished in 2-inch and 3-inch sizes.

LIST PRICES

<table>
<thead>
<tr>
<th>No.</th>
<th>Size</th>
<th>C</th>
<th>D</th>
<th>X</th>
<th>Plain or N. P.</th>
<th>With Galv. Body</th>
<th>All Brass</th>
<th>Add for Chrome Plating</th>
<th>Wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>202-A</td>
<td>2&quot;</td>
<td>3&quot;</td>
<td>5&quot;</td>
<td>1&quot;</td>
<td>$7.50</td>
<td>$8.50</td>
<td>$12.00</td>
<td>$.80</td>
<td>6 lbs.</td>
</tr>
<tr>
<td>202-A</td>
<td>3&quot;</td>
<td>3½&quot;</td>
<td>6&quot;</td>
<td>1½&quot;</td>
<td>10.50</td>
<td>12.00</td>
<td>16.50</td>
<td>1.00</td>
<td>6 lbs.</td>
</tr>
<tr>
<td>202-C</td>
<td>2&quot;</td>
<td>3&quot;</td>
<td>5&quot;</td>
<td>1&quot;</td>
<td>7.50</td>
<td>8.50</td>
<td>12.00</td>
<td>1.00</td>
<td>6 lbs.</td>
</tr>
<tr>
<td>202-C</td>
<td>3&quot;</td>
<td>3½&quot;</td>
<td>6&quot;</td>
<td>1½&quot;</td>
<td>10.50</td>
<td>12.00</td>
<td>16.50</td>
<td>1.00</td>
<td>6 lbs.</td>
</tr>
</tbody>
</table>

The X dimension is the minimum. The amount of the adjustment is 1-inch in all cases. Regular slots or ¼-inch round holes are furnished, as desired. Strainers with slots will be furnished unless otherwise ordered.

Weep Holes can be furnished when specified, but if Drains are placed below water line, be sure and specify "No Weep Holes."
BLAKE
SWIMMING POOL FLOOR AND INLET DRAINS
Semi-Adjustable

These Blake Floor and Inlet Drains are adjustable vertically 1-inch, and have arrangement for connecting caulking sheet lead to the body of the connection so as to prevent seepage around it.

The strainers are made of red brass, and are removable for cleaning. Regular slots or 3/16-inch holes are furnished in the strainers, as desired. Made in 2-inch and 3-inch sizes, and furnished either polished brass or nickel-plated.

LIST PRICES

<table>
<thead>
<tr>
<th>No.</th>
<th>Size</th>
<th>C</th>
<th>D</th>
<th>X</th>
<th>Plain or N. P.</th>
<th>With Galv. Bodies</th>
<th>All Brass</th>
<th>Add for Chrome Plating</th>
<th>Wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>203-A</td>
<td>2&quot;</td>
<td>2 1/4&quot;</td>
<td>5&quot;</td>
<td>1&quot;</td>
<td>$7.50</td>
<td>$8.50</td>
<td>$12.00</td>
<td>$.80</td>
<td>5 lbs.</td>
</tr>
<tr>
<td>203-A</td>
<td>3&quot;</td>
<td>3&quot;</td>
<td>6&quot;</td>
<td>1 1/4&quot;</td>
<td>10.00</td>
<td>12.00</td>
<td>16.50</td>
<td>1.00</td>
<td>7 lbs.</td>
</tr>
<tr>
<td>203-C</td>
<td>2&quot;</td>
<td>3 1/4&quot;</td>
<td>5&quot;</td>
<td>1&quot;</td>
<td>7.50</td>
<td>8.50</td>
<td>12.00</td>
<td>.80</td>
<td>5 lbs.</td>
</tr>
<tr>
<td>203-C</td>
<td>3&quot;</td>
<td>3 1/2&quot;</td>
<td>6&quot;</td>
<td>1 1/4&quot;</td>
<td>10.50</td>
<td>12.00</td>
<td>16.50</td>
<td>1.00</td>
<td>7 lbs.</td>
</tr>
</tbody>
</table>

WHEN DRAINS ARE USED BELOW WATER LINE, BE SURE AND SPECIFY “NO WEEP HOLES”

BLAKE
VACUUM CONNECTION FOR SWIMMING POOL

This Blake Vacuum Connection for Swimming Pools is made in 2-inch size only, with female threaded outlet, having the dimensions following:

C   D   X   Wt.
3 1/4" 3" 3/4" 4 lbs.

The brass center is adjustable 1-inch vertically, the minimum dimensions being given. It is made tight in the flange by caulking. A sheet of lead is also fastened to it by the same caulking, thereby making it proof against seepage around it.

The brass center is made with a taper for the hose connection or threaded for I. P. Made in polished brass or nickel-plated, as desired.

LIST PRICES

<table>
<thead>
<tr>
<th>Polished Brass or N. P.</th>
<th>$6.00</th>
<th>All Brass</th>
<th>$8.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>With Galv. Body</td>
<td>6.50</td>
<td>For Chrome Plating, add</td>
<td>1.00</td>
</tr>
</tbody>
</table>
BLAKE SWIMMING POOL FITTINGS

K-702—Blake Cast Iron Inlet Connection with Polished Brass or Nickel-Plated Brass Adjustable Head

Flashing Rings are Extra

This is our K-258 cast iron Pan fitted with a brass screw neck inlet head.

Body is tapped for I. P. connection and arranged for flashing ring, if desired.

Specify "No Weep Holes" if used below Water Line.

MEASUREMENTS AND LIST PRICES

<table>
<thead>
<tr>
<th>Size</th>
<th>A (in.)</th>
<th>B</th>
<th>C</th>
<th>D (in.)</th>
<th>E</th>
<th>Regular Body</th>
<th>Galvanized Body</th>
<th>All Brass</th>
<th>Weight</th>
<th>Add to List</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-1/2-in.</td>
<td>7-1/2</td>
<td>2-1/2</td>
<td>1-1/2</td>
<td>1-1/4</td>
<td>4</td>
<td>$11.00</td>
<td>$12.00</td>
<td>$15.00</td>
<td>8-1/2 lbs.</td>
<td>$1.00</td>
</tr>
<tr>
<td>2-in.</td>
<td>7-1/2</td>
<td>2-1/2</td>
<td>2</td>
<td>1-1/4</td>
<td>4</td>
<td>11.00</td>
<td>12.00</td>
<td>15.00</td>
<td>8-1/2 lbs.</td>
<td>1.00</td>
</tr>
<tr>
<td>3-in.</td>
<td>9</td>
<td>3</td>
<td>3</td>
<td>1-1/2</td>
<td>12.00</td>
<td>13.00</td>
<td>16.50</td>
<td>10-1/2 lbs.</td>
<td>1.10</td>
<td></td>
</tr>
<tr>
<td>4-in.</td>
<td>10-1/2</td>
<td>2-1/2</td>
<td>4</td>
<td>1-1/2</td>
<td>5-1/2</td>
<td>13.00</td>
<td>14.50</td>
<td>18.00</td>
<td>13 lbs.</td>
<td>1.00</td>
</tr>
</tbody>
</table>

If exposed inlet head is to be chromium plated, add $1.50 to above list prices.

K-706—Blake Cast Iron Inlet or Outlet Connection for Use With Any of Our Swimming Pool Drains or Inlet or Outlet Heads

Made in cast iron in sufficient length to go through wall of pool.

Furnished black or galvanized. Outlet end is tapped for 2-inch I. P., while other end is tapped to receive various drain heads.

Body and flange is made square, providing a good and immovable anchorage in the concrete.

K-706A—Blake Cast Iron Inlet or Outlet Connection with 4x4 Square Brass Screw Neck Head and Strainer

This is the same connection as K-706, except that it is shown with Strainer Head attached. Larger square or round Strainer Heads can be supplied.

MEASUREMENTS IN INCHES

<table>
<thead>
<tr>
<th>Size</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D (in.)</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>Wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-3/4</td>
<td>13-1/2</td>
<td>2</td>
<td>2</td>
<td>2-1/4</td>
<td>5</td>
<td>4</td>
<td>1-1/2</td>
<td>12 lbs.</td>
<td></td>
</tr>
</tbody>
</table>

LIST PRICES

<table>
<thead>
<tr>
<th>Japanned</th>
<th>Galv.</th>
<th>All Brass</th>
<th>Chrome</th>
<th>White Metal Strainer</th>
</tr>
</thead>
<tbody>
<tr>
<td>$8.50</td>
<td>$10.00</td>
<td>$14.30</td>
<td>$.60</td>
<td>$1.80</td>
</tr>
</tbody>
</table>
BLAKE SWIMMING POOL FITTINGS

Blake All-Brass Underwater Inlet Connections for Swimming Pool

With inlet connections, such as are shown here-with, a spray of fresh water may be had under the top of pool water. K-703 is arranged with a series of holes for supply, and if straight connection is not wanted the K-704 45-degree connector will provide space for other water lines that may be in the way if straight connection were made.

K-705 shows another form of inlet connection with extended flaring outlet.

LIST PRICES

<table>
<thead>
<tr>
<th>Size</th>
<th>Weight</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-703</td>
<td>2-inch</td>
<td>4 lbs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K-704</td>
<td>2-inch</td>
<td></td>
</tr>
</tbody>
</table>

K-703A—Blake All Brass Underwater Inlet Connection

Built to provide a spray of fresh water under the surface of the pool, and so arranged that its construction will avoid other water lines. If the holes are wanted larger, use a file.

LIST PRICES

<table>
<thead>
<tr>
<th>Size</th>
<th>Nickel Plated</th>
<th>Chromium Plated</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-703A</td>
<td>$10.50</td>
<td>$11.30</td>
<td>5 lbs.</td>
</tr>
</tbody>
</table>
BLAKE—Gutter Drains

K-707—Blake All Brass Gutter Drain

Can be furnished with concave face plate if desired, but is regularly furnished with flat plate and outlet tapped 2-inch female pipe thread, unless otherwise ordered.

K-708—Blake All Brass Concave Gutter Drain

Furnished in 3 sizes.
Outlet can be furnished female L.P. if so ordered.

K-708A—Blake All Brass Semi-Narrow Scum Gutter Drain

Can be furnished with concave or flat strainer, but flat strainer will be shipped regularly.

Price, Pol. Brass or N. P. top $8.00 Wt. 3 lbs.
Same with Chrome Plated top 9.00

K-708B—Blake All Brass Narrow Scum Gutter Drain with 45 degree Outlet

Can be furnished with concave or flat strainer, but flat strainer will be shipped regularly.

Price, Pol. Brass or N. P. top $15.00 Wt. 4½ lbs.
Same with Chrome Plated top 16.00

K-708C—Blake All Brass Narrow Scum Gutter Drain

Can be furnished with concave or flat strainer, but flat strainer will be shipped regularly.

Price, Pol. Brass or N. P. top $7.00 Wt. 2½ lbs.
Same with Chrome Plated top 8.00
### Numerical Index

<table>
<thead>
<tr>
<th>Introduction</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Layout</td>
<td>2</td>
</tr>
<tr>
<td>Recommended for Piping and Fittings for Standard Pool</td>
<td>3</td>
</tr>
<tr>
<td>202A—Floor and Inlet Drains—Adjustable</td>
<td>4</td>
</tr>
<tr>
<td>202C—Floor and Inlet Drains—Adjustable</td>
<td>4</td>
</tr>
<tr>
<td>203A—Floor and Inlet Drains—Semi-Adjustable</td>
<td>4</td>
</tr>
<tr>
<td>203C—Floor and Inlet Drains—Semi-Adjustable</td>
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</tr>
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<td>204C—Vacuum Connection</td>
<td>5</td>
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<tr>
<td>511A—Circular Floor and Pool Bottom Drains—Heavy</td>
<td>10</td>
</tr>
<tr>
<td>511C—Circular Floor and Pool Bottom Drains—Heavy</td>
<td>10</td>
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<tr>
<td>K-511—Main Outlet Drain—with Safety Pan</td>
<td>10</td>
</tr>
<tr>
<td>K-512—Gutter Drain—Plain—Extra Heavy</td>
<td>9</td>
</tr>
<tr>
<td>701B—Scum Gutter Drain—Completely Adjustable</td>
<td>9</td>
</tr>
<tr>
<td>701C—Scum Gutter Drain—Completely Adjustable</td>
<td>9</td>
</tr>
<tr>
<td>701D—Scum Gutter Drain—Completely Adjustable</td>
<td>9</td>
</tr>
<tr>
<td>701E—Scum Gutter Drain—Completely Adjustable</td>
<td>9</td>
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<tr>
<td>701W—Scum Gutter Drain—with Bottom Outlet</td>
<td>9</td>
</tr>
<tr>
<td>K-702—Inlet Connection—Adjustable Head</td>
<td>6</td>
</tr>
<tr>
<td>K-703—Underwater Inlet Connections</td>
<td>7</td>
</tr>
<tr>
<td>K-703A—Underwater Inlet Connections</td>
<td>7</td>
</tr>
<tr>
<td>K-704—Underwater Inlet Connections</td>
<td>7</td>
</tr>
<tr>
<td>K-705—Underwater Inlet Connections</td>
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<tr>
<td>K-706—Inlet or Outlet Connection</td>
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<tr>
<td>K-706A—Inlet or Outlet Connection</td>
<td>6</td>
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<tr>
<td>K-707—Gutter Drain</td>
<td>8</td>
</tr>
<tr>
<td>K-708—Gutter Drain—Concave</td>
<td>8</td>
</tr>
<tr>
<td>K-708A—Scum Gutter Drain—Semi-Narrow</td>
<td>8</td>
</tr>
<tr>
<td>K-708C—Scum Gutter Drain—Narrow with 45 Degree Outlet</td>
<td>8</td>
</tr>
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<td>K-710—Pool Outlet Drain</td>
<td>11</td>
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</table>

### Summary Index

<table>
<thead>
<tr>
<th>Connections—Vacuum</th>
<th>Page</th>
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<tr>
<td>Inlet—Adjustable Head</td>
<td>5</td>
</tr>
<tr>
<td>Inlet or Outlet</td>
<td>5</td>
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<tr>
<td>Underwater Inlet</td>
<td>6</td>
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<table>
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<tr>
<th>Drains—Circular Floor and Pool Bottom—Heavy</th>
<th>Page</th>
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<tbody>
<tr>
<td>Floor and Inlet—Adjustable</td>
<td>4</td>
</tr>
<tr>
<td>Floor and Inlet—Semi-Adjustable</td>
<td>5</td>
</tr>
<tr>
<td>Gutter</td>
<td>8</td>
</tr>
<tr>
<td>Gutter—Concave</td>
<td>8</td>
</tr>
<tr>
<td>Gutter—Plain—Extra Heavy</td>
<td>9</td>
</tr>
<tr>
<td>Main Outlet with Safety Pan</td>
<td>10</td>
</tr>
<tr>
<td>Outlet</td>
<td>11</td>
</tr>
<tr>
<td>Scum Gutter Narrow</td>
<td>8</td>
</tr>
<tr>
<td>Scum Gutter—Narrow with 45 Degree Outlet</td>
<td>8</td>
</tr>
<tr>
<td>Scum Gutter—Semi-Narrow</td>
<td>8</td>
</tr>
<tr>
<td>Scum Gutter—Bottom Outlet</td>
<td>8</td>
</tr>
<tr>
<td>Scum Gutter Completely Adjustable</td>
<td>9</td>
</tr>
</tbody>
</table>

Introduction | 2 |

Layout Recommended for Piping and Fitting for Standard Pool | 3 |
OUR TERMS OF SALE

Two per cent discount for cash on 10th of month for shipments made from 16th to end of previous month, and on 25th for shipments made from 1st to 15th, inclusive, of current month or 30 days net. Checks will be returned if these terms are not followed.

All agreements or contracts made by us are contingent upon strikes, fires, accidents, war or other causes beyond our control.

An interest charge of 6% will be made against all past due accounts.

All shipments are at the risk of the purchaser, and our responsibility ceases when we receive a clear receipt from the carrier.

All shipments of a value of $5.00 or less will be subject to an extra service charge of 10%, with 15c as a minimum. No invoice will be made for less than 25c.

All of our products are of high quality, thoroughly tested, inspected, and guaranteed against defect, with our name placed on every piece for identification. If, therefore, you receive from us any material that proves defective, we will cheerfully replace without charge—but no allowance will be made for labor or damages.

If defective material is altered by the customer, in attempting to use it he will do so at his own risk, as we will not be responsible for any consequential damages or replacement without charge. We must be notified.

In every case of defective material the full measure of damages will be the price of the material or replacement thereof.

Promise of shipping dates are estimated, but not guaranteed.

Weights shown in catalog are approximate, and, also, lack guarantee.

All claims must be made within five days after receipt of material.

When orders have been filled correctly, as specified, no credit will be allowed for goods returned, unless our consent has been received, and all goods so returned will, if accepted, be credited at the cost or prevailing price, whichever is lower at the time, less a minimum handling and accounting charge of 15% and less all freight and cartage expenses incurred.

On all slow-moving or partly special material not suitable to return to our stock, special arrangements must be made with us for handling and carrying charges (which may run from 25% to 50% discount on the price of the material) before returning. If any material returned to us will need refinishing to again make it saleable, such labor or additional material will also be deducted from credit.

Goods made up special and not regularly listed in our catalog remain your property and must be paid for.

If orders for special goods are cancelled after work has been started, all costs accrued will be charged and must be paid for.

All credits for returned material will be on basis of merchandise credits only and to be absorbed by purchases of other of our material.

On all parcel post shipments, insurance, in addition to postage, will be charged.

We reserve the right to change any or all of our prices without notice.

Sales Tax—Any Sales or Mfrs. Tax imposed under any existing or future statutes shall be added to the price herewith effective and shall be paid by the buyer.
K-512—Blake Extra Heavy Plain Gutter Drain

For 2, 3 or 4-inch screw or Soil Pipe Outlet
5½" x 10" Top
Total depth 4½ inches
Made in all Iron, all Brass or Cast Iron Body with Brass Top.

LIST PRICES

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>Iron</td>
<td>$5.00</td>
<td>$6.75</td>
<td>$9.00</td>
<td>$10.75</td>
<td>$13.00</td>
</tr>
<tr>
<td></td>
<td>Galv.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11 lbs.</td>
</tr>
</tbody>
</table>

Add for Chrome Plating top $1.00.

701W—Blake Scum Gutter Drain

With Bottom Outlet and 2½" x 10" Strainer Face and with angular adjustment up to 15° degrees in any Direction

LIST PRICES

<table>
<thead>
<tr>
<th>Size</th>
<th>Strainer</th>
<th>Polished Brass</th>
<th>All Brass</th>
</tr>
</thead>
<tbody>
<tr>
<td>701W</td>
<td>2-inch</td>
<td>2½&quot; x 10&quot;</td>
<td>$7.50</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$10.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6 lbs.</td>
</tr>
</tbody>
</table>

FOR CHROMIUM PLATING, ADD $1.00.

BLAKE—Scum Gutter Drains—Completely Adjustable

No. 701-D has bottom outlet D: tapped 2-inch L.P.
No. 701-E has 2½" x 10" strainer and side outlet.
See 701W, above.

For same drain with bottom outlet.

These Blake Scum Gutter Drains are made in 2-inch sizes only, which is the size best adapted for the best designed gutters. The strainer is long and narrow, and is adjustable in both a vertical and angular direction. The angular adjustment is 15° any direction, while the vertical adjustment is 1-inch. The dimension given in the cuts is for the lowest position.

The advantage of these adjustments is that it is able to place the strainer in line with the bottom of the gutter, even if the roughing-in is improperly done.

A lead pan is caulked into the top of the drain at the same time as the angular adjustment is fastened to anchor it into the concrete and prevent seepage around the body of the drain.

When the strainer is removed there is a full size opening for cleaning. These are made with either plain or nickel-plated strainers, as per the following list:

LIST PRICES

<table>
<thead>
<tr>
<th>No.</th>
<th>Size</th>
<th>Strainer</th>
<th>Plain or N. P.</th>
<th>Wt.</th>
<th>No.</th>
<th>Size</th>
<th>Strainer</th>
<th>Plain or N. P.</th>
<th>Wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>701-B</td>
<td>2-inch</td>
<td>2½&quot; x 4&quot;</td>
<td>$5.00</td>
<td>9 lbs.</td>
<td>701-D</td>
<td>2-inch</td>
<td>2½&quot; x 4&quot;</td>
<td>$4.50</td>
<td>9 lbs.</td>
</tr>
<tr>
<td>701-C</td>
<td>2-inch</td>
<td>2½&quot; x 4&quot;</td>
<td>$5.25</td>
<td>9 lbs.</td>
<td>701-E</td>
<td>2-inch</td>
<td>2½&quot; x 10&quot;</td>
<td>$8.00</td>
<td>10 lbs.</td>
</tr>
</tbody>
</table>

Chrome Plating add 10% to above list prices.
Heavy Circular Floor and Pool Bottom Drains

The Blake Heavy Circular Floor and Pool Bottom Drain bodies are made of heavy cast iron, and they can be furnished with either cast iron or red brass grates and rims.

Any of these grates will stand a load of 2,000 pounds, thereby making them adaptable for places where they are subject to heavy loading, such as trucking, etc.

They are made with wide flanges, suitable for anchoring into concrete without any clamping arrangement.

No dirt can fall directly from the grate into the drain pipe, as the center of the grate over this is solid, and any dirt entering the grate falls directly into the dirt catcher surrounding the pipe which is provided for this purpose.

Made with bell or female threaded outlet.
A denotes bell outlet. C denotes tapped outlet.

<table>
<thead>
<tr>
<th>LIST PRICES</th>
<th>With Cast Iron</th>
<th>Brass Rim &amp; Grate</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>D</td>
<td>C Grate</td>
</tr>
<tr>
<td>3&quot;</td>
<td>511-C</td>
<td>14&quot; 10&quot; 4 1/2&quot;</td>
</tr>
<tr>
<td>4&quot;</td>
<td>511-A</td>
<td>14&quot; 10&quot; 4 1/2&quot;</td>
</tr>
<tr>
<td>5&quot;</td>
<td>511-C</td>
<td>21&quot; 16&quot; 5 1/4&quot;</td>
</tr>
<tr>
<td>6&quot;</td>
<td>511-C</td>
<td>21&quot; 16&quot; 5 1/4&quot;</td>
</tr>
</tbody>
</table>

For Chromium Plating, Brass Rim and Strainers, add 5% to N. P. List Prices.

K-511S—Blake Swimming Pool Main Outlet Drain with Safety Pan
Flash Ring is Extra

This Drain is the same as our K-42J, except that it has a 10-inch square frame with an 8-inch strainer. It can also be furnished with hinged strainer at extra list as shown below.

Can also be furnished with outlet for soil pipe, but this will make total depth about 1 1/4 inch more. If this drain is ordered for swimming pool outlet do not fail to specify—"no weep holes."

Made for 2, 3 or 4-inch screw or soil pipe connection.

<table>
<thead>
<tr>
<th>LIST PRICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
</tr>
<tr>
<td>2-inch</td>
</tr>
<tr>
<td>3-inch</td>
</tr>
<tr>
<td>4-inch</td>
</tr>
</tbody>
</table>

REPAIR PARTS

| Body Only, for 2, 3 or 4-inch size | $6.50 | $8.50 | $15.00 |
| Strainer and head only, 4-inch size | 4.00 | 8.00 | 7.00 |
| Strainer only, 4-inch size | 2.50 | 3.50 | 5.50 |
The American Public Is Demanding More Modern Swimming Pools
They Become the Popular Recreation Centers of Parks, Clubs, Schools and Community Centers
Blake Swimming Pool Fittings offer many Superior Advantages in Sanitation, Economical Installation and Operation

The popularity of sanitary, supervised swimming pools is ample evidence of the appreciation of the people of all ages to justify the comparatively moderate expenditure to afford so much real pleasure and beneficial exercise.

For swimming today is recognized, and very often prescribed by the world's most famous doctors, as one of the most essential factors in body building, health-giving exercise.

The demand for swimming pools is here—municipal pools for the general populace, private pools for those who can afford them, as well as the ever-growing agitation by patrons of clubs, schools, hotels and resorts for both indoor and out-door pools.

Because of the exceptional interest manifested in Swimming Pools, we are showing a few installations including our fittings, which we hope may prove of benefit. Also a number of swimming pool plans which suggest various methods of providing swimming pool facilities.

In many cases the cost of maintenance may be kept down to almost a negligible amount by taking advantage of natural conditions. For example: a nearby brook or spring may supply an abundance of clean water for at least a part of the season—this may be augmented with city water supply, or through filtration and recirculation, used continuously.

Swimming Pool locations need not be confined to parks, but may be conveniently located in thickly populated areas. Many cities are finding it expedient to build a number of smaller pools in separated locations rather than try to accommodate the crowds in a large central pool.

To properly prescribe and service the installation of the varied demand for swimming pools is the work of competent architects and plumbers.

However, the Blake Engineering Department can be of genuine assistance because of their wide experience in servicing hundreds of pools of all kinds and under so widely varied conditions. Their knowledge of fittings and the functions which they will perform, their conception of the problems to be faced, and their understanding of administrative conditions often to be met, gives them a fund of information which is available to you for the asking.

Blake Fittings are built specifically for the work they are expected to perform. They meet every requirement of sanitation, and they are factory tested for strength and durability. The reputation of Blake Fittings has been achieved over many years of satisfying performance—ample proof of your security in specifying Blake Fittings throughout.
Three New Pools at Rochester, N. Y., Supply Wading and Swimming Facilities

Three new conveniently located pools will supply healthful outdoor recreation under the best of sanitary conditions for youngsters and grownups alike. Blake fittings have been installed.

At left — The North Side Pool — Genesee Valley Park.

During vacation periods Rochester's swimming pools are a haven of refuge from the summer heat for the children and a source of gratifying anticipation of an evening plunge for the older folks.

F. H. CARROLL — Chief Engineer
Rochester, N. Y. Monroe County Emergency Work Bureau

At right — The South Side Pool — Genesee Valley Park.

Great interest has been exhibited by other cities in Rochester's plan of providing what might be termed "neighborhood swimming pools." Rochester has brought the pools to the people—placing them in strategic positions so that all may enjoy the benefits of swimming.

Below — Two views of Seneca Park Pool.

Blake Fittings play an important part in the entire system of all these pools and do their part in contributing to the happiness and safeguarding the health of those who enjoy the privileges provided by the City of Rochester.
Diagrams for Contemplated Installations

Suggest wide variety of construction plans and various types of lay-out to conform with available water supply and maintenance funds

Plumbing equipment, though not in evidence to the casual observer, is of the most vital importance in swimming pool construction, and because most of the fittings are set in concrete it is doubly important that their quality and efficiency in operation be predetermined.

Blake Fittings bear an enviable record in swimming pool achievement, largely because drainage forms the major problem in construction — a subject our engineers have mastered through many years of constant association with most of the major building operations in the country.

We are also prepared to make any special fittings or drains to service peculiar conditions that may arise in any construction.

Illustrations reproduced through the courtesy of Plumbing & Heating Contractors Trade Journal
The "Old Swimming Hole" Modernized

Out of doors, shallow at the edges, deep in the middle—to accommodate "little tots" as well as their big brothers and sisters, modernized with concrete and specialized plumbing fittings so it is entirely sanitary—a safe place for all to enjoy the greatest of all American Sports—Swimming.

Through the courtesy of the Plumbers and Heating Contractors Trade Journal we show a picture of the new swimming pool at Urbana, Ill., which will accommodate 2,000 people. Below a layout showing the practicability of using water supply from a nearby stream, augmented by city water and recirculation and filtration when natural supply is not available. With modifications this plan may be used for the more economical method of obtaining the entire water supply from a stream, if available.

The Blake Engineering Department has a wide variety of swimming pool plans from which you may select a layout to fit your local conditions. They will also be glad to suggest the most efficient intake and drainage fittings if you send blue prints of the pool which you have planned.
Blake Fittings Promote Sanitation in Bath House—Pump House and Pool

Sanitation should be the first consideration in planning a Swimming Pool.

Every phase of construction from the water intake to the water discharge should be thoroughly checked by competent sanitary engineers to make sure that every precaution is taken to provide cleanliness. This precaution will be well repaid in public approval and the popularity of the pool.

Proper fittings to assure thorough circulation and drainage are essential—there should be no "dead spots" in the pool for water to become stagnated—intake should be so arranged that the bottom water as well as the surface is kept active—efficientskimming drains should be installed to keep the surface free from scum and debris—bottom drains should be of a type to insure thorough drainage and promote the scrubbing action so desirable in maintaining a uniformly clean pool.

Let us Co-operate with you by suggesting the most efficient fittings for YOUR SWIMMING POOL

Blake Specialty Co. Rock Island, Illinois
CONTRACT FOR
CONSTRUCTION OF SWIMMING POOL, ETC.,
VAL-KIL ESTATE
HYDE PARK, NEW YORK.

Copy 2 of 3.
CONTRACT FOR CONSTRUCTION OF SWIMMING POOL, ETC.,
VAL-XIL ESTATE, HYDE PARK, NEW YORK.

These Articles of Agreement entered into by and between
Anna Eleanor Roosevelt, hereinafter referred to as the Owner,
party of the first part, and Matthew F. Hasbrouck, of Stone
Ridge, New York, hereinafter referred to as the Contractor,
party of the second part, WITNESSETH:

ARTICLE I. In consideration of payments more particularly
described in ARTICLE III hereof, the Contractor will furnish all
labor, materials, plant, and equipment, and therewith build and
construct and place in complete and perfect operating condition
the swimming pool as indicated on the drawings and specifications
which were transmitted to the Contractor by letter dated April
16, 1935, modified, however, by the two drawings dated April 26,
1935, prepared by the Contractor, and letters from the Contractor
dated April 19, 1935 and April 25, 1935. (Copies of the drawings,
specifications, and the letters just referred to are attached
hereto and made a part hereof.)

ARTICLE II. In accordance with his letter of April 19, 1935,
the Contractor agrees to replace or repair any defective mechanical
parts, and to repair any structural defects, all without expense
to the Owner, where such mechanical or structural defects develop
within one year from the date of completion of the pool.

ARTICLE III. In consideration of the work described in
ARTICLE I above, and the guaranty of ARTICLE II above, both well
and truly done, the Owner will pay to the Contractor the sum of
SIX THOUSAND FIVE HUNDRED DOLLARS ($6,500) in partial payments
as follows:

FOUR THOUSAND DOLLARS ($4,000) when the concrete of the bottom
and walls of the pool has been poured and the major parts of the
purification and circulation system have been delivered and set
in place; and
TWO THOUSAND FIVE HUNDRED DOLLARS ($2,500) when the swimming
pool has been completed in accordance with this contract and
placed in operating condition, and satisfactory evidence has been
placed in the hands of the Owner to the effect that all the Con­
tractor's obligations arising in connection with the work covered
by these Articles of Agreement have been paid.

ARTICLE IV. All of the work of this contract shall be com­
pleted by June 15, 1935.
ARTICLE V. All of the work executed under these Articles of Agreement shall be done in conformity with and in the spirit of such of the rules and regulations of the National Recovery Administration and of the Federal Emergency Administration of Public Works as may be legally applicable.

ARTICLE VI. The Contractor shall be responsible for and shall pay all liabilities incurred by him for services and materials used in the prosecution of his work done under these Articles of Agreement, and upon completion thereof, shall furnish the Owner with a release of liens.

ARTICLE VII. The Owner will be represented by Captain E. P. Lock, Jr., Corps of Engineers, U. S. Army, who with his advisers and assistants, shall have access to the work at all times. The said Captain Lock will pass upon the fitness, adequacy, sufficiency, and compliance with specified requirements, of all materials and workmanship entering into the work covered by these Articles of Agreement; and his decision respecting those matters shall be final and binding upon both parties hereto.

IN WITNESS WHEREOF, the parties aforesaid have on this 29th day of April, 1935, placed their signatures hereon (signed in triplicate).

Two witnesses as to signature of Anna Eleanor Roosevelt.

[Signatures]

Two witnesses as to signature of Matthew F. Hasbrouck.

[Signatures]
April 25, 1935

Mr. John L. Nagle, Assistant Chief
United States Department of the Interior
National Park Service
Navy Building
Washington, D.C.

My dear Mr. Nagle:

Pursuant to our conversation over the long distance telephone under date of April 24 and complying with your request, the breakdown of the different items as suggested to you in my letter of April 19 are as follows:

If 2' radius corners are incorporated in the work, add the sum of $40.
Stone gutter instead of cement gutter, add $100.
Hudson River blue stone in place of Crab Orchard, deduct $200.
Brass gutter drains in place of chromium plated, deduct the sum of $45.
Brass ladders in place of galvanized ladders, add the sum of $85.
Stone supports for springboards in place of galvanized iron, deduct $20.
Gutter drainage line of T.C. in place of cast iron, deduct the sum of $150.

One drain instead of two drains, deduct the sum of $25.

Filtration plant together with recirculating pump and chlorinating device in place of deep well equipment, deduct the sum of $405.

The above deductions and additions make the difference of $630 between the figure submitted in your specifications and those suggestions which were mentioned in my letter under date of April 19 and incorporated in our price of $6,500.

We are in receipt of your advice through the mail and also over the radio from the Navy Station as follows:

"RELATIVE INFORMATION DESIRABLE TO REFER TO IN CONTRACT MENTIONED THIS MORNING ON TELEPHONE PLEASE ALSO INCLUDE PROPOSED STRUCTURAL DESIGN OF WALLS AND BOTTOM OF POOL SHOWING THICKNESS OF WALLS CONCRETE ARRANGEMENTS OF REINFORCEMENT"

---

JOHN L. NAGLE"
These plans are being sent you tonight and will undoubtedly reach you as requested.

You will note that the steel shown is more equally distributed and although I have not figured the tonnage, I am inclined to believe, on a rough guess, that it is approximately the same within reason, although there will be more labor attached to placing the steel as it will necessitate more handling and tying, but it is a small matter and I do not care to raise any question regarding this item as I would prefer to see a more equal distribution, particularly so where the temperature is such a factor as it is in an outdoor pool.

The filters will be assembled by us, which is our regular practice. The shells are made of 3/16" new rolled plates. All piping in connection with filtration operation is galvanized iron; tanks to be of the pressure type, 36" in diameter, two in number, of the manifold system with brass strainers, these strainers to carry copper alloy specially manufactured and adapted for this work. Sand will be of Cape May material and washed quartz graduated in four layers.

The pump will be as manufactured by the American Steel Pump Company of Battle Creek, Michigan, or Ingersoll-Rand motor-driven, direct connected. This pump will be equipped with one horse power motor of General Electric or equal, characteristics as specified. This mechanical unit will be designed to deliver 60 gallons a minute against a 30' head, when operating for filling purposes. For recirculating and backwashing, there will be an increase of 10% in flow. The piping for the filters will be so arranged that the recirculating pump will be used for backwashing purposes, one at a time. It is for this reason that two units are being placed and the pump so designed to take care of this condition.

We are making every effort to get these plans to you and ask that you be a little lenient in asking for the design of the pump house until a very near future date, but I can assure you that it will be in accordance with your ideas and will be of a rustic nature.

You will note that we are placing the mechanical equipment in the pump house located as shown on the plan behind a clump of small pines and very close to two maples which have 16" butts. I mention this to try to give you an idea as to location. The suction line will be run out to the stream and will be placed in an intake chamber, which chamber will be made up of screens in which area the suction pipe will be placed together with a foot valve. This intake chamber to be entirely covered by 1" gravel so as to allow for the passing of the matter, but will not allow the passing of anything larger than what will come into and clog the impellers in the pump.

After my conversation with you on the telephone, I immediately went to Hyde Park and made the necessary surveys to get my elevations and locations as to the placing of pump house, discharge lines and intakes. I have also made all arrangements for the placing of an excavating shovel and will be working on the job Monday morning, weather permitting. I would appreciate quick action on the steel layout as we will be ready for same within the next week and as we are anxious to get everything completed before Decoration Day, we want to take advantage of every
minute that can be had to facilitate operations and completion.

Any further information or any plans which you are desirous of getting will be in your hands at the earliest possible moment upon advice from you.

Very sincerely yours,

HASBROUCK COMPANY, Inc.
Copy of this letter sent to Captain Lock

United States Department of the Interior
National Park Service
Navy Building
Washington, D.C.

Gentlemen:

ATTENTION: MR. JOHN L. NAGLE, ASSISTANT CHIEF

This is to confirm my personal interview with you at your office under date of April 18, at which time the construction of the swimming pool on President Roosevelt's Estate at Hyde Park was discussed. Certain suggestions were made and at your request, we are setting forth those items which we suggested as follows:

That the pool be poured in one continuous operation. We strongly recommend a monolithic job, especially for a pool of this size; also that all corners of the base where the wall comes in contact with the floor to have a 4" core, which core is to be incorporated into the original pour. That all four corners be constructed so as to form a 2' radius as a safeguard against possible fracture from frost. We suggest the substitution of a stone gutter in place of traveled finish cement. To substitute Hudson River blue stone flag walk in place of crab orchard, the reason for this being that all surrounding stone in place is of the same character which is a local product and will conform to all walks and general surroundings. We understand that the Government specification for crab orchard is from 1" to 1 1/2" in thickness. We do not feel that this thickness of stone has sufficient body to stand up on a sand base without possible rocking and fracture under any severe impact. The stone that we suggest would be not less than from 2" to 2 1/2" in thickness.

All fittings such as gutter drains, inlets, outlets and ladder to be of brass instead of chromium plated and galvanized iron. To construct the springboard supports of concrete, covering same with blue stone to conform with the walk around the springboard platform, doing away with a possible rust condition which in turn would cause a stain on the walk area. To use terra cotta bell and spigot 4" pipe around the perimeter of the pool for the gutter drains in place of cast iron. This pipe to be laid on firm base down to pool excavated area so as to overcome all possibility of settlement and breakage due to the placing of fill which is characteristic of work of this kind where the pipes are hung on the pool structure. All vertical lines from the gutter drains down to the tile drains to be of cast iron. To change the location of the main control valve and build a pit so that this valve can be accessible if at any time it is necessary to clean the gate slider due to sediment which collects and which causes a leakage through the gate area. The rain discharge pipe to be of cast iron up to the point of control valve, from which point terra cotta pipe is to run to a point of discharge. We strongly suggest that the contour of the pool be changed so the rain drain will be at the end of the pool instead of under the floor and suggest one rain drain instead of two.
To reconsider the digging of a well and in place of a well supply, to pump the water from the present stream, put in a filtration plant and as discussed with yourself and Captain Lock, this would guarantee you a body of water which will at all times be clear and would give the job water of a temperature which is quite necessary for the use that this pool is to be put to. The piping would be so arranged as to utilize this filtration plant as a recirculating system which would eliminate the weekly emptying and filling of the pool, taking into consideration that the well water would be of a temperature which will come to the pool in the neighborhood of 60 degrees and would take considerable time for the water to warm up due to atmospheric conditions. We strongly recommend this change.

Our estimate for the job complete which we would guarantee for a period of a year against all mechanical and structural defects is Six Thousand Five Hundred Dollars ($6,500). The time of completion will be six weeks, weather permitting, or thirty-six working days. At the request of Captain Lock, we further submit a price of $1.00 per cubic yard for all necessary backfill for the filling up to grade of all excess material necessary, it being understood that the excavation from the new pool is to be placed in the old pool area. Such necessary fill as is required to be taken from the present sand bank on the premises and placed where necessary.

This estimate is based and given as an alternate incorporating such suggestions as above mentioned as compared with the plans and specifications sent us. We feel that the foregoing recommendations would be of great benefit to the job and in turn bring about an economy of cost and operation. There will be a considerable saving in the cost of operation due to the fact that the deep well pump will have a 5 horse power motor as against the 2 horse power for recirculating and pumping purposes. If the suggestions above made are accepted and the contract awarded to us, a set of plans and specifications showing the changes will be sent you for your acceptance.

Respectfully submitted,

HASBROUCK COMPANY, Inc.

By

President

P.S. In discussing with you the specifications as regards paragraph 14 in reference to the well, you call for 35 gallons per minute during a twenty-four hours' continuous pumping. This we understand was not meant as a guarantee that the contractor was to supply 35 gallons a minute at a depth of 80 feet for we both agreed that there was no way humanly possible for anyone to guarantee the flow of water when digging a well through rock. As related to you, I have discussed the well proposition with the local well diggers and they feel that this can be done but that the result as called for can in no way be guaranteed. As we do not wish to have any misunderstanding in this matter, we are again bringing it to your attention. In figuring the job according to your specifications, we have figured on
driving an 8'' well to a depth of 80 feet, but we cannot guarantee the flow. If the water is there, the pump will deliver the amount of water specified.

H. C. Inc.
April 19, 1935

Copy of this letter sent to Captain Look

United States Department of the Interior
National Park Service
Navy Building
Washington, D. C.

Gentlemen: ATTENTION: MR. JOHN L. NAGLE, ASSISTANT CHIEF

We herewith submit for your consideration and acceptance our bid for the installation of a swimming pool at the home of President Roosevelt in Hyde Park, New York, according to the blue prints and outlined specifications mailed to this office under date of April 16, in the sum of Seven Thousand One Hundred Thirty Dollars ($7,130).

Respectfully submitted,
HASBROUCK COMPANY, Inc.

By President
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
EASTERN DIVISION, BRANCH OF ENGINEERING
WASHINGTON

April 16, 1935.

Hasbrouck Company,
101 Park Avenue,
New York City.

Gentlemen:

Following recent conversations relative to the construction of a new swimming pool at the Hyde Park estate, for the President, I am pleased to transmit herewith a set of blueprints and a draft of the specifications indicating the general lines along which it is desired a pool be built. Please understand that the information contained hereon is intended to cover a complete installation, in working order, and any minor omissions in the drawings or specifications will have to be supplied. Please also understand that this work is of a purely personal nature, and the National Park Service is not officially connected with it. I am handling the engineering work personally at the request of Captain Edwin P. Lock, Jr., White House.

Some of the drawings were hastily prepared, and the figured dimensions should govern wherever possible instead of scaled distances.

It is desired that your bid covering the construction of the pool as indicated by the accompanying papers be in Captain Lock's hands at the White House by noon, Saturday, April 20. A bid is desired on the indicated construction; but if you so elect, you may submit an additional bid for any design which may occur to you as being better adapted to local conditions. Please be sure to include with your alternative bid a description of any departures from indicated construction.

Any questions or any requests for additional information may be addressed to me until Thursday at 5:00 P.M., after which time to Captain Lock at the White House.

Should you wish to visit the estate to examine the site of the work, you will be permitted to enter the grounds upon presentation of this letter. A test pit has been dug on the site of the proposed pool which indicates that the earth is a sandy gravel at a depth of 11 feet.

As this is in no way a Government contract, the right is reserved to discuss any matters with any of the invited bidders after the time set for opening, or to award the contract as may best suit the needs and convenience of the President's family.

Very truly yours,

John L. Nagle,
Assistant Chief.
1. Scope of Work. — The work to be done under this contract consists in furnishing all labor, machinery, equipment and materials and constructing thereon in accordance with the specifications and the accompanying plans, a swimming pool complete.

The work comprises, among other things, the following major items:

- Excavation and grading, draining of existing pool, reinforced concrete, a new wall and pumps sufficient for a complete circulating system, a purification system, plumbing and drainage, a pump house, a spring board and ladder, and all incidental work necessary to complete the pool and place it in operation.

2. LAWS. — The Contractor shall be responsible and shall conform to all regulations in regard to the employment of labor. In general, local labor in the vicinity of Hyde Park shall be used to the maximum extent.

3. CONTRACT DOCUMENTS. — The following drawings form a part of and are supplementary to these specifications:

- Plans and Details - Two Drawings
- Photostat of an Architectural Perspective
- Photostat of Purification System - Two Drawings

4. DRAWINGS. — The Contractor shall prepare all detailed working drawings necessary for the manufacture of the material which shall be submitted for approval. The working drawings shall be in sufficient detail to facilitate the erection of the material in the field.

5. EXCAVATION AND GRADEING. — All excavation shall be to the depth indicated on the drawings. Any overdepth in foundation excavation shall be backfilled with concrete at the Contractor's expense unless such overdepth shall have been previously ordered. All backfill shall be deposited in 6-inch layers thoroughly tamped and puddled if directed.

The Contractor shall grade all of the area within six feet of the outer edge of the flagstone walk. Beyond the edge of this grading the banks shall slope 1-1/2:1 to 1 to the natural ground.

Sodding and landscape work is not included in this contract.

6. CONCRETE. — All concrete shall develop a strength of 3000 pounds per sq. inch in 28 days. It shall be mixed in the approximate proportions of 1:11/2:3:1/2, but shall contain not less than seven (7) bags of cement per cubic yard of concrete measured in place.

The forms for all exposed surfaces of concrete shall be lined with Masonite or some other approved material. The scum gutter and curb and pavement shall receive a smooth hard trowel finish.

All reinforcing steel shall be deformed bars rolled from new steel billets made by the open hearth process.
7. JOINTS. - Copper expansion joints shall be placed as indicated on the drawings and all joints shall be thoroughly sealed with an approved mastic material.

8. SPRINGBOARD & LADDER. - All pipe in the ladder and spring board frame shall be galvanized. The diving board shall be of clear vertical grain Oregon Pine in one piece free from flaws and it shall be covered with cocoa mat for its full length.

9. PAINT. - All exposed surfaces of concrete of the pool shall be painted with an approved paint of an approved color. The paint shall be suitable for the purpose and as many coats as necessary for a first class paint job shall be applied. The backs of all walls shall be dampproofed with an approved material.

10. DRAINING OLD POOL. - The side walls of the existing pool shall be punched through in at least four places to permit the free passage of sub-surface water.

The pool shall then be filled with excavated material from the new pool and shall be brought to the grade indicated by the contours on the drawings.

11. PUMP HOUSE. - The Contractor shall design a pump house of sufficient capacity to house all of the equipment necessary for the operation of the pool. The heating system is not shown installed at this time, however, the Contractor shall provide sufficient space for its installation.

The pump house shall be neat in appearance and shall harmonize with the surrounding landscape.

12. FLAGSTONE. - The flagstone shall be natural laid on a sand bed in random ashlar of approximate sizes indicated on the drawings.

13. PLUMBING. - Cast-iron bell and spigot water pipe conforming to Federal Specification W-F-431, Type I, Class 150 shall be used for all water supply and recirculating pipes and for the pool drain up to the 8-inch gate valves. All joints in cast iron water pipe shall be made with lead and jute in the most approved manner, the lead to be not less than 2 inches deep, to be run with one pouring and to be caulked flush with the bell. All fittings for cast iron water pipe shall conform to A.W.W.A. Specifications, Class D.

Extra heavy cast iron soil pipe, conforming to Federal Specification W-F-401 shall be used for the sewer gutter drains and at such other points as may be noted on the drawings. All joints in cast iron soil pipe shall be made with lead and jute in the most approved manner.

Galvanized wrought iron pipe, conforming to Federal Specification W-F-431, Class A, shall be used for all piping above the floor of the pump house and at such other points as may be noted on the plans. All joints in wrought iron pipe shall be made with properly cut tapered threads with all burrs removed and pipe ends reamed. Pipe joint compound shall be applied to the male threads only and care shall be taken that none of it gets inside.
of the pipe.

The main outlet drains shall be Josam, Type 596 M with chromium plated brass tops.

The seam gutter drains shall be Josam, Type 2282½ all brass with chrome plate top.

The inlets for the recirculating system shall be Josam, Type 2253 M with cast iron bodies and chrome plated brass strainers.

The brass goose neck inlet nozzle for the well supply pipe shall be of approved design.

14. WELL. - The Contractor shall drill an 8-inch deep well at the location for the pump house noted on the drawings, the well to have a capacity of not less than 35 gallons per minute during 24 hours continuous pumping. The Contractor shall submit complete specifications of the well he proposes to drill, but in general it must be cased with wrought iron casing to solid rock and provision be made to prevent the entrance of surface contamination. An approved strainer shall be provided if required. The bid shall be based on a well 80 feet in depth.

15. DEEP WELL PUMP. - The deep well pump shall have a capacity of 35 gallons per minute against the static and friction head necessary to deliver the water to the pool and shall be designed to operate continuously for 24 hour periods.

The pump cylinder shall be all brass, with galvanized wrought iron drop pipe and ash or galvanized iron pump rods and shall be arranged so that the plunger and all valves can be withdrawn without removing the cylinder from the well.

The pump head shall be of the enclosed gear, self oiling type and shall be driven by a 220 volt, 60 cycle single phase motor of suitable size through a "Y" belt or silent chain.

The Contractor shall submit detailed drawings and specifications of the pumping equipment he proposes to furnish for approval before proceeding with the installation.

16. CIRCULATING PUMP. - The circulating pump shall be of the single stage centrifugal type, direct connected to a 220 volt, 60 cycle single phase motor, and shall have a capacity of 35 gallons per minute. The pump shall be made integral with the motor frame and shall require no base plate or flexible coupling; the impeller being mounted directly on the motor shaft. The Contractor shall submit detailed drawings and specifications of the pump he proposes to furnish for approval.

17. CHLORINATOR. - The Contractor shall provide chlorinating system of the type shown on the accompanying photostat. The solution shall be fed by means of an adjustable motor driven pump, the piping to be so arranged that the solution can be injected into either the supply pipe from the well or the discharge pipe from the circulating pump. Detailed drawings and specifications of the chlorinating system proposed to be furnished shall be submitted for approval.
18. ELECTRICAL. - This work consists of the furnishing and installing of the following material and equipment:

1. A feeder in an underground conduit indicated on the drawing. The feeder shall be of rubber covered lead covered cable of sufficient capacity for the motors to be supplied. The feeder shall connect to the existing 220 volt, 60 cycle alternating current system in the present dwelling house through a fused safety switch in order to properly protect the feeder. The proper location of the safety switch shall be determined in the field.

2. A safety switch and a starter for each motor in the pump house. The starter shall be fully enclosed and of proper design to meet the requirements of each individual motor. The starters and safety switches shall be installed in an approved location and complete in every detail.

3. The required number and size of motors suitable for operating the particular equipment. The motors shall be of the general purpose type. All details of construction and performance shall be in accordance with the latest standards of the N.E.B. and N.E.C.

4. All wire, cable and their connections to the various equipment.

The entire installation shall conform in every detail with the following rules and requirements:

(a) The National Electric Code of the National Board of Fire Underwriters.

(b) The rules and requirements of the local electrical company supplying the current.

(c) The rules and regulations of the local Electrical Code.

(d) The standardization rules of the American Institute of Electrical Engineers.

(e) The standardization rules of the National Electrical Manufacturers Association.
PLANS AND DETAILS FOR AN OUTDOOR SWIMMING POOL
PLANS AND DETAILS FOR AN OUTDOOR SWIMMING POOL
TYPICAL WALL SECTION
VARY AS TO DETAILS
SCALE 1"=10'

NOTE
ALL STEEL DEFORMED ROUND RODS
ALL STEEL TO LAP 40 DIA.
ALL THE WIRES TO BE BEAT BACK
FROM INSIDE FORMS