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D.B. Meyer

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SPECIFICATIONS
FOR
RESTORATION OF FLOWER GARDEN AND SUMMER HOUSE
AT CUSTIS-LEE MANSION
ARLINGTON COUNTY, VIRGINIA

CONTRACT NO. 14-10-0028-2809

May 29, 1964

NATIONAL PARK SERVICE
Department of the Interior

NATIONAL CAPITAL REGION

NATIONAL CAPITAL OFFICE
DESIGN & CONSTRUCTION
NATIONAL PARK SERVICE
1100 OHIO DRIVE, SW.
WASHINGTON, D.C. 20242

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INDEX TO SPECIFICATIONS

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SECTION 1

WORK, DRAWINGS, SPECIAL CONDITIONS

1-1. TIME FOR COMPLETION:

All work except planting and sodding shall be completed within ninety(90) calendar days from date of receipt of notice to proceed.

If planting and sodding is not completed by April 15, 1965 the contract will be terminated for default and excess cost to the Government assessed against the contractor.

1-2. LIQUIDATED DAMAGES:

Liquidated damages in the amount of thirty dollars($30.00) per calendar day will be assessed for the entire delay in completing the work beyond the time agreed upon in Paragraph 1-1 for all work except planting and sodding.

1-3. WORK TO BE DONE:

The work to be done under this contract shall consist of furnishing all labor, plant, machinery, equipment, and materials for the construction therewith in accordance with these specifications and the accompanying drawings the Restoratinn of Flower Garden and Summer House at the Custis-Lee Mansion, Arlington National Cemetery, Arlington County, Virginia.

1-4. CONTRACT DRAWINGS:

The following contract drawings approved by the Contracting Officer form a part of and are supplementary to these specifications:

Title	Map File No.
Cover Sheet with Index	NCR 2.3-107-1
Staking, Grading and Utilities	-2
Details, Walks and Garden Seat	-3
Summer House, Floor and Footing Plans	-4
Summer House, Roof Plan and Elevations	-5
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The following standard drawings, bound at the end of these specifications, form a part of and are supplementary to these specifications:

Informational Construction Sign	NCP-48-266
Planting, Staking, and Guying	NCP-48-345

1-5. LAYOUT OF WORK:

The entire work, and every part therof, shall be accurately constructed in their required position, and all parts of the work shall be in proper alinement and correct relative positions. The Contractor shall provide all frames, forms, false-work, shoring, guides, anchors, screeds, templates,

and temporary structures of every nature that may be required to insure these desired results. The amounts stated in the contract shall cover and include all such work, materials, and constructions.

Prior to initiation of the work, the Contracting Officer will establish fundamental alinement points and provide a bench mark.

The Contractor shall provide his own instruments and surveyors and shall lay out all work and determine all positions and elevations for all the work covered by this contract, using as beginning such alinement points and bench marks as are mentioned above. The Contractor shall be responsible for the correctness of the work done by his surveyors, although such work will be subject to check and correction by the Contracting Officer. In the event of any discrepancy in the layout of the work, the matter shall at once be reported to the Contracting Officer for his decision or check, and for such adjustment as may be necessary.

The Contractor shall preserve all hubs and points set by the Contracting Officer. The cost of replacing any of these hubs and points that are destroyed by neglect or carelessness on the part of the Contractor shall be deducted from any amounts due or to become due to the Contractor.

1-6. INFORMATIONAL SIGN:

The Contractor shall furnish one informational sign in accordance with drawing number NCP 48-266, a copy of which is bound at the end of these specifications. Large scale copies, drawing number NCR 48-265A, of the informational sign will be furnished the successful bidder. The sign shall be erected where directed at least one week prior to commencement of the work. The information to be placed on the sign shall be as follows:

(Name of Project)
IS BEING IMPROVED BY
(Name of Contractor
FOR
NATIONAL CAPITAL REGION

The Contracting Officer will furnish one "MISSION 66" sign for each informational sign to be erected. The Contractor shall haul the sign from the National Capital Region Yards at 515 New York Avenue, NE. and mount it above the informational sign as shown on the above-mentioned drawing.

1-7. WARNING SIGNS:

The Contractor shall provide and maintain "Warning Signs," etc., in accordance with Paragraph 19 of the General Conditions.

1-8. FINAL DRAWINGS:

Final drawings will be required in accordance with Clause 34 of the General Conditions.

1-9. VISITOR USE AND TEMPORARY FENCE:

Access to the site by the Contractor from Sherman Avenue shall be by Lee Drive. Contractor shall not interrupt visitor circulation at the Mansion by blocking any paths or sidewalks outside the limits of work. Contractor shall construct brick sidewalks in northwest section of work limits with a minimum disruption to circulation of visitors.

Contractor shall erect a temporary four-foot snow fence around the entire perimeter of the rectangular portion of the garden, and remove when work is completed.

1-10. ACCESS TO THE SITE:

Access to the site shall be through Fort Meyer South gate on Arlington Ridge Road. Contractor and his employees shall not use the Hemicycle entrance to Arlington National Cemetery under any condition.

SECTION 2

EXCAVATION AND GRADING

2-1. SCOPE:

This work shall consist of excavating and grading the entire area within the limits shown on the plans, and disposing of all excavated material in accordance with these specifications and in conformity with the lines, grades, and dimensions as shown on the plans. Also included are the miscellaneous items that obtrude, encroach upon, or otherwise obstruct the work; relaying any utility lines exposed by the excavation; and removal and stockpiling of reusable topsoil.

2-2. EXCAVATION:

Excess excavated material which cannot be utilized shall be disposed of by the Contractor off the site.

The finish of excavated area shall be that ordinarily obtained from blade-grader operations and shall be within 0.1 foot either way of the subgrades as determined from the plan.

Remove existing curbs, paving, and miscellaneous items shown on plans and dispose of off the site.

2-3. UTILIZATION:

Suitable excavated material shall be utilized for fill purposes as described in SECTION 3, FILL, or as directed by the Contracting Officer.

Suitable salvaged topsoil may be utilized in accordance with SECTION 7, TOPSOIL AND SODDING.

2-4. PROTECTION OF TREES, BOXWOOD, WALKS, AND TRENCHES:

Take all necessary special measures to protect trees and boxwood adjacent to the work. Brick sidewalks shall be protected with boards and suitable barricades approved by the Contracting Officer. All open pipe trenches shall be protected at all times with approved guards of wood covering or stakes and ropes. All existing boxwood shall be protected for the duration of the contract with snow fencing around the plants.

SECTION 3

FILL

3-1. SCOPE:

This work shall consist of placing in fills material excavated under "Excavation," or furnished by the Contractor, in conformity with the lines, grades, and dimensions shown on the plans.

3-2. MATERIALS:

Material for fill shall consist of approved suitable material. Fill material shall be free from frost, stumps, trees, roots, sod, muck, or rubbish.

3-3. CONSTRUCTION METHODS:

When so directed by the Contracting Officer, scarify the entire existing ground surface on which fill is to be placed in such a manner that embankment material will bond with existing surface. Place fill or embankment material in successive, approximately horizontal layers not exceeding 6 inches in thickness before compaction. Level and smooth each layer before starting the next, by means of power-driven graders, bulldozers, or other suitable equipment and then thoroughly compact by rolling with tamping or pneumatic-tired rollers or other approved methods. Use mechanical tampers where compaction cannot be obtained in this manner, as against structures.

Place any solid material over 1 cubic foot in volume or other undesirable material not less than 2 feet below finish grade.

Construct all fills so that after shrinkage and settlement and at the time of acceptance of the work, they shall have the required grade, width, and cross-section at all points.

The Contractor shall be responsible for the stability of all fills until final acceptance of the work, and shall replace any portions which have become displaced due to carelessness or negligence on his part of to damage resulting from natural causes such as storms, etc., and not attributable, in the opinion of the Contracting Officer, to unavoidable movement of the ground on which fill is made.

Backfill adjacent to newly paved areas for width to suitable blend with existing surface. Work ground to a smooth transition where finish grades intersect with existing grades. Trim slopes, fill and banks neatly to even natrual lines suitable for finish grading.

SECTION 4

CONCRETE WORK

4-1. SCOPE:

Furnish all labor, material, and equipment for concrete construction, including footings, and other concrete work as shown on the drawings or specified.

The concrete work shall comply with the applicable portions of the District of Columbia Specifications for Highways and Structures, 1963, and reference section and paragraph numbers in this section of the specifications, refer to this D. C. Specification.

4-2. MATERIALS:

a. All concrete shall be Class "BB", Section 10.3.

b. All other material shall comply with the D. C. Specifications.

4-3. CONCRETE CONSTRUCTION:

The concrete work shall be installed in accordance with the applicable portions of the D. C. Specifications, 1963.

4-4. FORMS:

Forms shall be of adequate strength to support the imposed loads safely and without displacement. They shall be substantially and tightly built to prevent leakage of mortar and shall be braced and tied so as to remain true to line and position without bulging, sagging, or other deformation.

Forms shall be oiled with a paraffin base oil. Forms shall not be treated with any substance that will stain or injure the surface.

Forms for footings may be omitted if excavation is made to required dimensions and concrete is poured in clean-cut trenches without cavings.

4-5. EXCAVATION AND BACKFILL:

The Contractor shall make all excavations required for the work.

Backfill adjacent to new construction to meet evenly with the existing grade or as indicated.

SECTION 5

BRICK WORK

5-1. SCOPE:

Furnish all labor, material, and equipment for the construction of brick paving. This work shall include fine grading of the base course, installing brick paving, and all miscellaneous work necessary to complete the item.

5-2. MATERIALS:

Sand	Fed. Spec. SS-S-51.
Paving Brick	Use existing brick from walks to be obliterated at site.

5-3. BRICK PAVING CONSTRUCTION:

Brick paving shall be constructed with the designs indicated on the plans with a smooth surface to conform with finish grade.

Brick walks shall be installed on a 2-inch sand cement cushion. Exterior row-lock edging shall have a concrete base and joints shall be grouted as specified below. Sand cement cushion shall have 1 part cement and 3 parts sand and applied in a damp condition.

Brick edging shall be constructed as shown on the contract drawings.

The joints between bricks shall be 3/8-inch unless otherwise shown on the plans and shall be filled with 1 part cement and 3 parts sand, grout applied in a dry or damp condition.

Preparation of the base and tamping shall be performed in accordance with the applicable portions of paragraph 7.3.8 of the District of Columbia Highway Specifications (1963).

SECTION 6

GRAVEL WALKS

6-1. SCOPE:

Furnish, place and compact bank run gravel for the construction of soils base course and washed gravel surface to the specified depth on the prepared sub-base, and conforming to the lines, grades and cross section shown on the plans.

6-2. MATERIAL:

Bank run gravel shall consist of natural mixtures of gravel, sand, and soil mortar so graded and proportioned as to compact into a dense mass. Materials for soils base course shall meet the quality and gradation requirements as specified in Section 3.9 of the D. C. Highway Specifications (1963).

Gravel for 1-inch surface shall be washed gravel, maximum size of $\frac{1}{2}$-inch.

6-3. PLACING OF BANK RUN GRAVEL:

The bank run gravel shall be placed and compacted for the entire width shown on the drawings.

Compaction of the gravel shall be in accordance with Section 3.5 of the D. C. Highway Specifications (1963). The bank run gravel shall contain the optimum amount of moisture for compaction at the time the compaction is accomplished.

Washed gravel surface shall match the color of washed gravel in front of mansion, maximum size of $\frac{1}{2}$-inch.

SECTION 7

WATER SYSTEM

7-1. SCOPE:

Furnish all labor, materials, and equipment for the complete installation of piping, connections, stopcocks, valves, and sprinkler boxes. Also included is trenching and backfilling necessary in connection with the work intended, as well as the making of all connections for the proper operation of the system and the abandoning of old lines and installations.

Where existing lines are shown on the plans, said lines are located to the best of the Contracting Officer's knowledge, but the Contractor shall locate the existing lines and adjust proposed lines to meet actual conditions at no change in price.

7-2. MATERIALS:

Underground water lines shall be Type K copper tubing conforming to Fed. Spec. WW-T-799a(1). Joints shall be made with flared couplings, fittings, and valves.

Valves shall be bronze body, non-rising stem, interior screw. They shall conform to the requirements of Fed. Spec. WW-V-54(2), Type I, Class A, suitable for use with copper tubing. Each valve shall have the name of the manufacturer and the working pressure stamped on the body. Stems shall be packed for water service.

All valves and stopcocks shall be enclosed in an adjustable cast iron valve box, $5\frac{1}{4}$-inch diameter minimum, equipped with cast iron covers. Covers for valves on water lines shall have the word "Water" cast on the top surface.

Sprinkler boxes shall be Skinner #151, size 1-inch, or approved equal.

7-3. TRENCHING AND BACKFILLING:

Trenches shall be dug sufficiently wide and deep to permit the accurate laying of the pipe and the carrying out of all operations incidental thereto. The Contractor shall provide and install al necessary shoring and bracing to prevent the caving-in of the sides of all trenches. He shall be responsible for and make good at his own expense any and all damages resulting from cave-ins or other failures in the event of such happenings.

All necessary steps shall be taken to keep the trenches dry during excavation and after excavation up to the time of backfilling.

Backfilling shall be placed in layers which shall not exceed 6 inches in depth and shall be tamped or otherwise compacted to the satisfaction of the Contracting Officer. The Contractor may be required to dampen or slush each layer of the backfilling material with water to such an extent as may be necessary to secure a well compacted mass around and above the pipes. Backfilling shall consist of material considered to be suitable for such purpose by the Contracting Officer.

Water pipe trenches shall be dug to a depth which will permit a backfill covering from at least 30 inches below finish grade or as indicated on the plans.

7-4. INSTALLATION OF PIPE AND APPURTENANCES:

Necessary barricades and suitable signs, flares, lanterns, and other signal and protective devices shall be provided and used at locations where desirable for public safety.

Pipes and fittings shall be thoroughly cleaned before they are laid and shall be kept clean until the acceptance of the completed work. The ends of the pipe shall be provided with a stopper carefully fitted so as to keep dirt and other substances from entering. Stoppers shall be kept in the pipe ends at all times when laying is not in actual progress.

Valve boxes shall be so set that the covers will be $\frac{1}{4}$ inch below finish grade and shall be painted with a heavy coat of tar or asphalt paint.

Risers to sprinkler boxes shall be 1-inch.

7-5. DISINFECTION OF WATER SYSTEM:

(a) All pipe, fittings, and equipment comprising the water system shall be disinfected when completed. Chlorine compounds such as High Test Hypochlorite, (HTH), Pittchlor or Hoodchlor which contains 70 per cent available chlorine may be used as a disinfecting agent. The calcium hypochlorite solution shall be applied at the beginning of the new work through a corporation cock or other means and shall be sufficient to provide a disinfection dose of at least 50 ppm or produce a residual of 5 ppm after a 24-hour contact.

(b) During the chlorination process all valves and accessories shall be operated.

The equivalent of a dose of 50 ppm of chlorine is one (1) pound of 70 per cent hypochlorite to each 1,680 gallons water. Using 70 per cent hypochlorite, the following quantities of chemicals should be applied for each 100 feet of pipe in the respective sizes:

Size, inches	- 3/4 to 2
Ounces	- 1/8

After the chlorine solution has been in contact with the pipe lines and/or storage units for 24 hours, the system shall be thoroughly blown off to waste. Samples of the water shall then be collected from the extremities of the new system and tested for residual chlorine. When tests are satisfactory, the system may be placed into operation.

7-6. TESTS OF WATER SUPPLY:

Unless otherwise specified, every part of the water supply shall be tested under a hydrostatic pressure of 75 pounds per square inch using a hydraulic pump and an approved calibrated gage for at least one (1) hour. The installation may be tested in sections but the pipes in all untested sections shall be left uncovered, and the trenches maintained in a safe condition until the tests have been satisfactorily performed.

Before applying the specified test pressure, all air shall be expelled from the pipe. If hydrants or blowoffs are not available at high places, the Contractor shall make the necessary tap at points of highest elevation before the test is made and insert the plugs after the test has been completed.

The entire cost of making the tests, including the furnishing of all pumps, gages, hose, and all other necessary equipment shall be borne by the Contractor. The tests shall be made in the presence of representatives of the Contracting Officer, and any defects in workmanship or materials which may appear or be discovered during the tests shall be remedied, or if deemed necessary by the Contracting Officer, the work replaced and the tests continued until the system is free from defects. No pipes shall be covered until the sections under consideration have been approved by the Contracting Officer.

SECTION 8

SUMMER HOUSE

8-1. SCOPE:

Construct a Summer House as shown on the drawings and as specified.

8-2. FOUNDATIONS:

The foundations shall be concrete as shown on the drawings. The two floor beam piers and eight trellis piers shall be of concrete blocks with cast footings. The dowels for the trellis posts shall be set into cement placed in the concrete block holes. Concrete masonry units shall be Fed. Specs. SS-C-621(1), Type I and concrete shall be as specified in Section 4. Mortar shall be one part Portland cement, 3 parts and 1/5 part hydrated lime.

8-3. TRELLIS:

The circumferential trellis shall be of undressed and unpainted "B" and Btr. Select Douglas Fir.

8-4. STRUCTURAL MEMBERS:

Structural members shall be "C" Select, Douglas Fir, milled, dressed and cut to size before erection. Members shall be bolted as noted on drawings and spiked together where not shown as bolted. King post shall be lathe turned and truss receivers shop fabricated of welded and drilled steel, shop primed one coat of rust inhibiting paint and touched up before erection. Steel shall be ASTM A-7.

8-5. FLOORING AND SEATS:

Flooring shall be "B" and Btr. Select Douglas Fir with 1/8-inch spacing between pieces, uniform. Flooring nails shall be of cut variety similar to those used on the floor of the Main Hall of the Custis-Lee Mansion.

Bench backs and seats shall be "B" and Btr. vertical grain Douglas Fir, eased edges. Seat shall have ½-inch radius on exterior edge.

8-6. ROOF:

Roof shall be No. 1 Dense SR Southern Pine or Douglas Fir sheathing with covering of 50-pound roofing paper, doubled and tarred on plane intersecting joints. Twelve-inch long Red Cedar Certigrade, No. 1 (Blue Label) shingles shall be used as the top surface. Shingles shall be pressure treatedwith fireproof treatment to retention as recommended by the manufacturer. Shingles shall be between 4 inches and 6 inches wide and shall have 5 inches to the weather. Shingles shall be tapered and 0.45 inches at butt.

8-7. WOOD CONSTRUCTION WORK:

All wood framing shall be of the size and spacing marked, assembled and set as shown on detail drawings. Plates, sills and columns on walls, slabs, etc., shall be set level or vertical and secured with anchors. All wood shall be dressed on four sides except as otherwise noted. Grades shall be factory marked on each piece of lumber.

Special framing or construction not explicitly shown or specified shall be provided as required to complete the work in the best and most workmanlike manner.

Nailing and spiking of construction shall be of ample size. Spikes larger than 20-penny shall be used where practicable. All nails for exterior rough and finish work shall be either hot-dipped galvanized or aluminum. All bolts shall be hot-dipped galvanized.

Furnish and install all rough hardware including metal straps, ties, etc., for the proper installation of all carpentry and millwork.

Pieces not specifically mentioned shall be grade "B" and Btr. Lattices shall be knot free.

8-8. PAINT AND FINISHING:

The exterior of the structure shall be painted with an undercoat and tow finish coats of the same soft, buff yellow color used on the Custis-Lee Mansion. Interior and exterior primer shall be Rustoleum #590 White Undercoater, or equal and finish coat shall be Rustoleum "Top Coat" semigloss enamel, or equal to match color of Mansion. The interior of the structure shall be painted complete with seat, lattice, structural members, floor, sheathing, King posts, truss members and their metal fittings. All metal fittings shall be painted first with a rust inhibiting paint and then the yellow finish coat in addition to the shop prime coat.

Submit color chart. Final color shall be selected on the site by the Contracting Officer.

8-9. SHOP DRAWINGS:

Submit shop drawings of all mill work in quadruplicate for approval prior to fabrication.

8-10. WOOD PRESERVATIVE:

Floor joists, flooring, trellis, trellis posts and other wooden pieces not to be painted shall be pressure treated with a pentachlorophenol-petroleum solution, Fed. Spec. TT-W-571c. Pentachlorophenol shall be a minimum 5 percent in an approved light oil-base vehicle as nearly colorless as is obtainable. Retention of the solution shall be as recommended for the particular size of lumber treated.

SECTION 9

TOPSOIL AND SOD

9-1. SCOPE:

This item shall consist of utilizing salvaged topsoil, preparing the surface of disturbed and regraded areas for planting, furnishing, and placing any additional topsoil required, furnishing and placing sod, furnishing and applying fertilizer, lime, and other materials, at the location shown on the plans, being within the limits of work and other areas disturbed by the construction, as directed by the Contracting Officer.

9-2. MATERIALS:

Topsoil - The topsoil shall be a natural friable loam, possessing characteristics of the best soils of the vicinity, containing at least two (2) percent organic matter, which produce heavy growth of crops, grass, and other vegetation. The topsoil shall be reasonably free from subsoil, clay lumps, stones, stumps, roots, or similar objects larger than 1/2 inch in diameter, brush, objectionable weeds, Bermuda Grass, or litter, or any other material or substance which may be harmful to plant growth or a hindrance to grading, planting, and maintenance operations.

The Contractor shall notify the Contracting Officer of the location of all sources of topsoil. The soil will be inspected by the Contracting Officer of the location of all sources of topsoil. The soil will be inspected by the Contracting Officer to determine if the selected soil meets the requirements. At the time of inspection, a representative soil sample from several locations on the area under consideration shall be taken and shall be tested for pH (or lime requirements), and for organic matter by an acceptable state or commercial soil testing laboratory and approval shall be obtained prior to delivery to the site.

Sod - The sod shall be best quality Kentucky Bluegrass and shall be delivered in rolls not less than 4-1/2 feet long and 12 inches wide. At least seventy (70) percent of the plants in the cut sod shall be composed of Bluegrass and not more than (10) ten percent crabgrass. It shall have been sprayed with 2-4-D for eradicating broadleaf weeds and shall be free from undesirable foreign plants such as Bermuda grass, crabgrass and large stones or other materials which might be detrimental to the development of the sod.

Sod shall be uniformly cut not less than 1-1/2 inches in thickness, and the sod shall have been mowed with a lawnmower within 5 days previous to lifting. Small, irregular or broken pieces of sod will not be accepted.

The source shall first be approved before the delivery of any sod to the job site.

Fertilizer - Fertilizer shall be a standard commercial mix of 10-10-10 grade and shall conform to applicable Federal laws. It shall analyze not less than 10 percent nitrogen, 10 percent phosphoric acid and 10 percent potash. It shall be uniform in composition, dry and a free flowing material suitable for application by a common fertilizer distributor or other approved equipment. Delivery shall be in bags or other convenient standard containers each fully labeled with the manufacturer's guaranteed analysis. Any fertilizer which becomes caked or otherwise damaged, making it unsuitable for use, will not be acceptable. Fertilizer shall be subject to tests by representatives of an approved testing laboratory, at the discretion of the Contracting Officer.

Lime - The lime shall be ground limestone containing not less than 85 percent of total carbonates and shall be ground to such fineness that 60% will pass through a 100 mesh sieve and 100 percent will pass through a 20 mesh sieve. Coarser material will be acceptable, provided the specified rates of application are increased. Duplicate copies of a statement from an approved testing laboratory, showing that the line to be furnished meets the requirements of the specification, shall be submitted.

9-3. SPREADING TOPSOIL:

The earth areas indicated on the drawings shall be covered with a layer of topsoil to the required depth after compaction. Just prior to the placing of the topsoil, the subgrade shall be cleared of all stones and debris and then harrowed, or otherwise thoroughly loosened to effect a bond between the subgrade and topsoil.

No topsoil shall be spread which is so wet that it will clod or cake. The topsoil shall be worked and harrowed so that the soil is thoroughly pulverized and in a condition conductive to the growing of good lawn grass. The finish surface of the topsoil shall be graded to a smoothness comparable to the results obtained from hand raking, and shall be left clean and free from stones, debris and depressions which will hold water. The final grades shall conform accurately to those indicated on the project drawings and the entire area shall be left drainable and free from abrupt changes in slope.

9-4. LIMING AND FERTILIZING:

After the topsoil has been applied, the specified limestone shall be spread at the application rate determined by the above tests before the fertilizer application. The specified fertilizer shall then be spread evenly at the rate of 10 pounds per 1000 square feet and lightly raked into the top 2 inches of soil. The soil shall then be disked, harrowed or otherwise worked until pulverized and until the limestone and fertilizer has been incorporated to a depth of 2 inches.

9-5. PLACING SOD:

All areas to be sodded shall first be worked up to the depth of topsoil and the soil thoroughly pulverized. The finished surface of the soil shall be graded as specified and left clean and free from stones, debris and any depressions which will hold water. The sod shall be firmly tamped in place with an acceptable tamper to the required grade. Sod shall not be laid in any area until the area has been approved. If the sod workmanship is not satisfactory, the sod must be taken up and relaid. If the sod is placed on a steep slope, it shall be pegged as directed and at the discretion of the Contracting Officer.

The Contractor shall water, mow and otherwise properly maintain all sodded areas until final acceptance.

9-6. MAINTENANCE:

The contractor shall water, mow and otherwise maintain all sodded areas until final acceptance of the work.

SECTION 10

TOPSOIL ADMIXTURE FOR PLANTING AREA

10-1. SCOPE:

Furnish and place admixture to existing soil in the rectangular planting area and incorporate the admixture into the top 8 inches of soil after the final grading has been completed.

10-2. ADMIXTURE:

a. Coarse builders sand shall be spread over the finished subgrade to a uniform depth of 2 inches. Subgrade shall be 3 inches below final grade before applying sand.

b. Peat moss identical in quality, texture and color to that described in Section 11, Paragraph 11-8, will be spread over the layer of sand to a uniform depth of 2 inches.

10-3. INCORPORATION OF ADMIXTURE:

The sand-peat moss admixture will be incorporated into the top 8 inches of existing topsoil by means of a scarifier, rotary cultivator, disk, or spike harrow. The mixture shall be uniform, free of clods, and finished off to the grade shown on Sheet 2 of the drawings (Grading, Staking, and Layout).

SECTION 11

PLANTS AND OTHER MATERIALS

11-1. SCOPE:

This item shall consist of furnishing and delivering plant material, topsoil, peat moss, bone meal, and other incidentals necessary to the planting.

11-2. SAMPLES:

The Contractor shall submit such samples of each type of material he proposes to use as the Contracting Officer may require.

In addition, the Contractor shall furnish four (4) one-quart samples of bone meal, peat moss, topsoil, and leaf mold mulch in labeled glass jars. Each sample shall be typically representative of the kind and quality of the material he proposes to furnish. The Contracting Officer shall have the right to reject any or all samples which fail to meet the requirements of these specifications and to require that additional samples be submitted until an acceptable sample has been approved.

No materials relative to which samples are to be submitted shall be delivered to the site of the work until samples of such materials have been accepted and approved in writing.

The samples submitted to the Contracting Officer shall remain in his possession for use in comparison with all materials delivered by the Contractor.

11-3. TESTS:

All tests to determine whether or not materials proposed comply with the requirements of the specifications will be made by the Government at no cost to the Contractor. However, the Contractor shall furnish such samples as may be required by the Contracting Officer and the right will be reserved to sample and test any or all materials delivered at the site previous to their being incorporated into the work.

11-4. PLANT MATERIALS:

a. General Requirements: Plant materials shall meet the detailed description of the individual items on Sheet 7 of the Contract Drawings titled "Plant Materials List."

Items shall be of the size specified.

b. Plant Names: The plant names shall agree with the nomenclature of "Standardized Plant Names," 1942 edition, by American Joint Committee on Horticultural Nomenclature. Plants shall meet all requirements and recommendations of the Standard for Nursery Stock, sponsored by the American Association of Nurserymen, and approved by the American Standards Association, Inc., in effect on the date of invitation for bids, and as specified on Sheet No. 7 titled "Planting Plan."

c. Quality: All plant material shall be nursery grown stock and shall be normally developed and typically representative of the species and/or variety stated. Such stock shall be well branched, strong and healthy, and shall possess a well-formed vigorous and unbroken root-system. Every plant shall be free from diseases, defects, insect infestation damage to bark or branches, or any other unhealthy condition or malformation.

d. Dimension: The caliper of each tree shall be determined by taking the average of two caliper or diameter measurements in inches of the trunk taken at right angles to each other six inches above the "root crown."

The height of each plant, where specified, shall be determined by taking its height in feet above the "root crown" to the average growth of the main part of the plant top.

e. Balled and Burlapped Plants: Plants designated "B & B" shall meet the standards described under "Recommended Balling and Burlapping Specifications" shown in American Standard for Nursery stock approved, March 18, 1959.

f. Vines, Annuals, perennials, and roses listed on Sheet 7 of the drawings (Planting Plan) shall meet the standards described under "Vines, Bulbs, Corms and Tubers, and Rose Grades" shown in American Standard for Nursery Stock, approved March 18, 1959.

g. Shipment, Delivery, and Inspection: The Contractor shall notify the Contracting Officer, in advance, when plant material is to be delivered to the site.

All plant material shall be protected from the weather and adequately packed to prevent breakage and drying out during transit. The right is reserved to inspect and select all plant material before plants are dug. This inspection, if made, shall be at the nursery or growing site by the Contracting Officer without cost to the Contractor.

Plants shall not be planted on the job until they have been inspected at the receiving site and approved by the Contracting Officer. Legible tags will be attached to at least one typical specimen of each species shown on the Plant Material List to identify the species. Packages, boxes, or bunches of plants will be identified with a similar tag attached. Plants which do not meet the specifications for quality herein stated, or plants that show improper handling or arrive on the site in an unsatisfactory condition shall be rejected. All rejected plants shall immediately be removed and disposed of by the Contractor, and approved nursery stock of like variety, size, age, etc., shall be replaced by him without additional compensation.

Final acceptance of all plant materials will be given only after the materials are planted and after meeting all requirements prescribed herein.

h. Regulations Governing Entry of Plants and Plant Products Into the State of Virginia: Shipments or orders of plant material shall be properly inspected at the nursery and/or growing site by the authorized Federal and State authorities or inspectors such as may be required by the Bureau of Entomology and Plant Quarantine, U.S. Department of Agriculture, Washington, D. C., for the necessary transportation of the same, before removal from the State or District, wherein the nursery and/or growing site is situated; and each shipment, invoice or order of stock shall be declared and certified free from disease of any kind. All necessary inspection certificates to that effect shall accompany each shipment invoice or order of stock, such as may be required by law for the necessary interstate and interdistrict transportation; and such certificates shall be filed with the Contracting Officer prior to acceptance and payment.

11-5. TOPSOIL:

Topsoil shall be as specified in Section 9 of these specifications.

11-6. BONE MEAL:

Bone meal shall be commercial raw bone meal, finely ground, and shall have a minimum analysis of 2.37% nitrogen and 23% phosphoric acid. It shall be delivered in standard size bags showing weight, analysis, and name of manufacturer. Bone meal shall be stored in a weatherproof place.

11-7. LEAF MOLD MULCH: Leaf mold mulch shall be composed of partially decayed leaves typical of two year old hardwood forest duff free of extraneous matter and approved by the Contracting Officer before use.

11-8. PEAT MOSS: Peat moss shall be of good commercial quality, uniform in texture, color and porosity, free of mineral or soil materials, and shall be furnished in an air dry condition; samples shall be approved by the Contracting Officer before use.

11-9. PREPARED SOIL BACKFILL:

Prepared soil shall be five (5) parts of topsoil thoroughly mixed with one (1) part peat moss, adding five pounds of bone meal per cubic yard of the topsoil-peat mixture, all to be mixed at designated locations in the presence of and as directed by the Contracting Officer.

11-10. PAINT FOR TREE WOUND DRESSING:

Paint for sealing plant wounds or cuts shall be of an approved Commercial grade asphaltic base sealer containing no ingredient detrimental to the healing of the injury.

11-11. STAKES FOR BRACING AND ANCHORING:

Bracing stakes or anchor stakes shall be cut from sound rough sawn 2 x 2's, not used previously, and free from knots or other defects. Stakes may be of rot-resistant wood species or treated with an impregnated wood preservative.

11-12. GUYING MATERIAL:

See "Standard Detail", drawing number NCR-48-345, included in this specification for hose, wire and canvas guying material. Hose shall be sound, black, 1" in diameter, rubber and free of cracks. Wire shall be smooth, 10 gauge galvanized. Canvas shall be new, 20 oz. minimum, cotton, green or brown in color, cut in strips not less than 2" wide.

SECTION 12

PLANTING

12-1. SCOPE: This section shall consist of planting all items contained on the List of Plant Materials shown on Sheet 7 of the drawings (Planting Plan) according to the plans or as directed by the Contracting Officer, and of the protection of those plants shown on Sheet 2 of the drawings (Staking, Grading, and Utilities), including the excavation and preparation of soil and the mixture required for planting the items; this section also consists of placing mulch, staking and guying, watering, pruning, maintenance, and other incidentals necessary to complete the work.

12-2. PLANTING OPERATIONS:

Except as otherwise specified, the Contractor's work shall conform to accepted horticultural practices as used in the trade.

12-3. PROTECTION OF PLANTS AT THE SITE BEFORE PLANTING:

Plants shall be protected upon arrival at the site by being thoroughly watered and properly maintained until planted by covering with wet soil, peat moss, suitable straw mulch material, or other approved method. Plants shall not remain unprotected for a period exceeding 24 hours. At all times workmanlike methods customary in good horticultural practices shall be exercised.

12-4. LAYOUT OF WORK:

Before digging of holes or beds, the location and/or arrangement of the planting shall be staked by the Contractor and approved by the Contracting Officer except where otherwise stated on the contract drawings.

12-5. EXCAVATION OF PITS:

See "Standard Detail", drawing number NCR 48-345, included in this specification for the size of pits to be excavated for trees and shrubs, vines, annuals, perennials, and roses shall be planted according to standard horticultural practices for each species.

Pits will be dug within 2 hours of the time of planting; the Contracting Officer may order any pit backfilled and reopened if that time is exceeded to prevent evaporation of soil moisture.

All excavated soil shall be hauled by the Contractor to a dumping place to be designated by the Contracting Officer, within a reasonable radius of the job and dumped and leveled as directed by his representatives.

12-6. PLANTING:

Planting operations may be conducted under favorable weather conditions throughout the period of this contract, except when the ground is frozen or too wet, as determined by the Contracting Officer. The plant arrangements are to be as shown on the contract drawings. However, the final location, facing, and/or orientation of any or all plants shall be as directed by the Contracting Officer.

The Contractor shall make any changes in the locations of the proposed planting, as may be required, without additional cost to the Government. Vines, annuals, perennials, and roses shall be planted according to the season within one year's duration of this contract.

Special care will be exercised in the handling of all plants. Loose soil on balled-and-burlapped plants, rope burns, broken or otherwise injured branches, excessive pruning, or overly dry plants will be causes for rejection.

The soil-peat moss-bone meal mixture will be compacted in the bottom of the hole to assure that the stability of the grade of the root collar of the plant will remain even with the grade of the adjacent ground; settlement of the plant below the adjacent ground will be a cause for the removal and/or replacement of the plant. The soil mixture will be tamped in layers to prevent voids around the ball. Burlap will be cut away from the top of the ball; removal of burlap will be as directed by the Contracting Officer.

A soil berm will be formed around the plant as shown on "Standard Detail" drawing number NCR-48-345, to a height sufficient to contain mulch and adequate water.

12-7. WATERING:

Each plant will be watered immediately following its planting. Additional soil mixture shall be placed to bring the soil to its proper and final grade.

12-8. MULCHING:

Leaf mold mulch shall be spread to a depth of 2 inches around trees and one inch around shrups as soon after the soil mixture is saturated as practicable. Mulch around vines, annuals and perennials, and roses shall be spread to a depth as directed by the Contracting Officer. Mulch will be used to cover all exposed soil before completion of the contract.

12-9. STAKING:

See "Standard Detail", drawing No. NCR-48-345, for details of staking. White Oaks (4), and White Poplars (2), will be staked according to Type "C." All other trees shall be staked according to Type "B". Three anchor stakes and guys with hose (Type "C"), or three vertical stakes with canvas strips (Type "B"), will be placed 120° apart and will be provided for each tree.

Staking and guying will be done as soon as practicable after planting but within 24 hours.

12-10. PRUNING:

Pruning shall be done immediately following staking and guying. Care shall be taken to preserve the leader of each tree and the normal characteristic growth of the species. Cuts shall be made with a sharp knife or pruning shears close to the branch or trunk to avoid stubs. All cuts over 1/2 inch in diameter shall be sealed immediately with asphaltic sealer. The Contracting Officer will be present and approve the pruning operation.

12-11. MAINTENANCE DURING CONSTRUCTION:

The contractor shall, during the life of the contract, properly care for all plants furnished, planted, or stored, performing such watering, weeding, cultivating, or other ordinary maintenance work as shall be necessary to keep the stock in a live healthy condition. Shrubs and trees which have died back into the crown or beyond normal pruning line shall be replaced by contractor at no additional expense to the Government.

12-12. CLEANUP AND RESTORATION:

The contractor will be required to furnish all labor, material, and equipment for cleanup and restoration of all disturbed areas or features which have been damaged during the course of the work.

12-13. PLANTING AND SODDING TIME:

Planting and sodding shall be performed between October 15, 1964 and April 15, 1965, and also within the appropriate season for the species in accordance with common horticultural practices, as directed by the Contracting Officer.

SECTION 13

MISCELLANEOUS WORK

13-1. TEAK GARDEN BENCH:

The Teak Bench shall be top quality seasoned teak, free from knots, fabricated in a shop and milled to dimensions as shown on the drawings. Dowels shall be set with an exterior waterproof glue. Submit shop drawings in quadruplicate for approval.

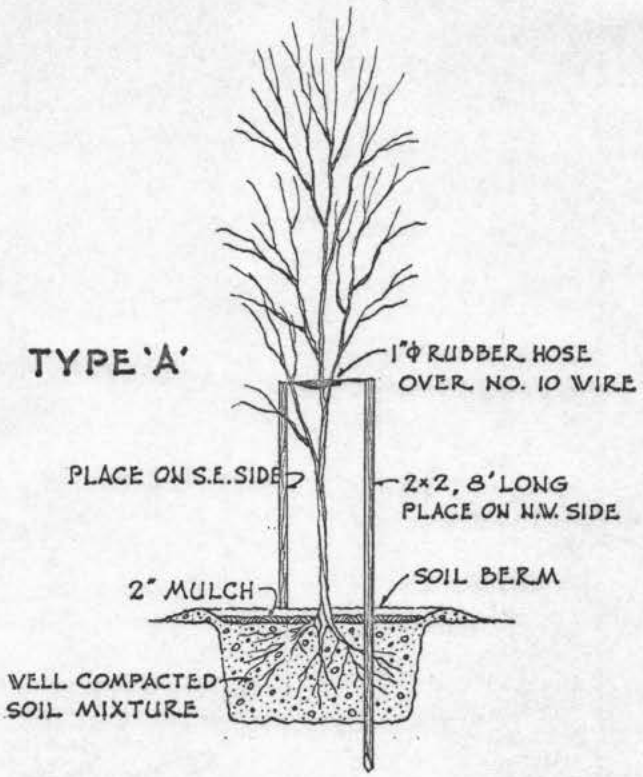
13-2. INSTALLATION OF TREE STUMP:

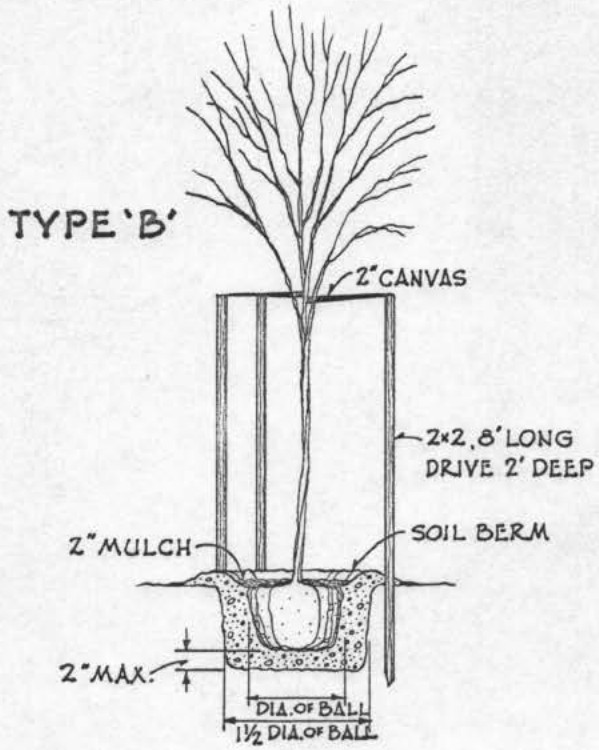
Install tree stump in bank run gravel as shown on Sheet 3. The tree stump will be furnished and delivered to the site by the Contracting Officer.

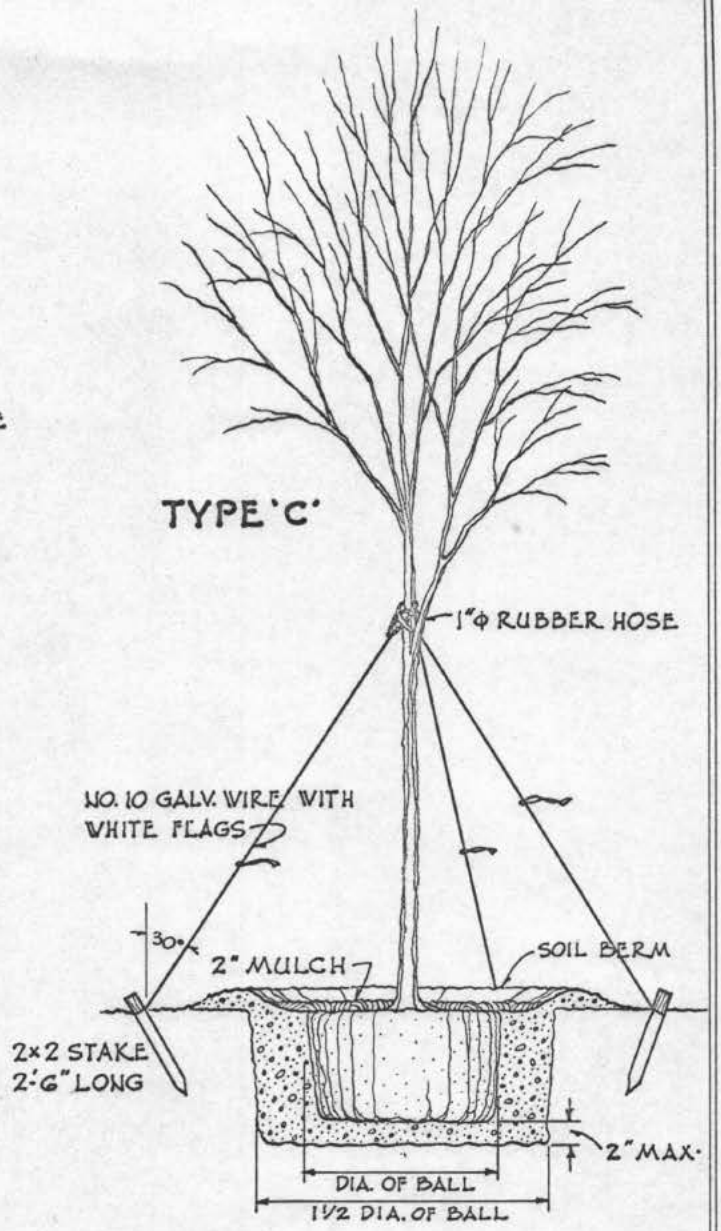
13-3. REMOVAL AND STORAGE OF "TEMPLE OF FAME" COLUMNS:

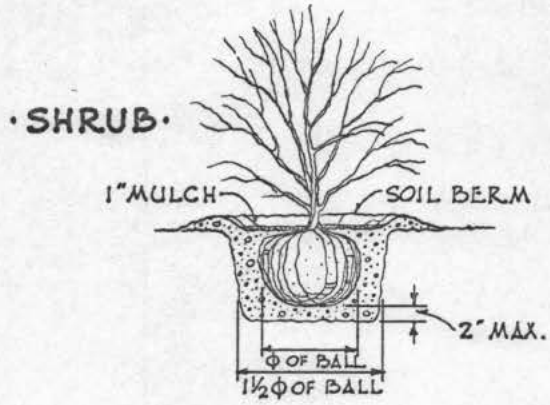
The Contractor shall take all necessary special measures to remove "Temple of Fame" roof and structural members in a manner not to damage the concrete columns.

The Contractor shall remove and dispose of off the site all parts of the Temple of Fame except the concrete columns. The columns shall be wrapped and carefully guarded with timbers. Each column shall be transported to and placed in storage in a warehouse at the National Capital Region warehouses on the George Washington Memorial Parkway, adjacent to the Washington National Airport, Arlington, Virginia









STANDARD DETAILS PLANTING, STAKING, GUYING		U. S. DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE NATIONAL CAPITAL OFFICE OF DESIGN & CONSTRUCTION	
DESIGNED: HOWLAND DRAWN: " CHECKED: RENSCH	5/22/64 Robert W. Andrews DATE CHIEF, NCDC	SCALE ¼" = 1'-0"	DRAWING NUMBER N·C·R·-48-345

STANDARD FORM 21
JANUARY 1961 EDITION
GENERAL SERVICES ADMINISTRATION
FED. PROC. REG. (41 CFR) 1-16.401

BID FORM
(CONSTRUCTION CONTRACT)

REFERENCE: IFB 2809

Read the Instructions to Bidders (Standard Form 22)
This form to be submitted in DUPLICATE

DATE OF INVITATION: May 29, 1964

NAME AND LOCATION OF PROJECT: Restoration of Flower Garden and Summer House at Custis-Lee Mansion, Arlington County, Virginia

NAME OF BIDDER *(Type or print)*:

(Date)

TO: Chief, National Capital Office, Design and Construction
National Park Service
Department of the Interior
Washington, D. C.

In compliance with the above-dated invitation for bids, the undersigned hereby proposes to perform all work for Restoration of Flower Garden and Summer House at Custis-Lee Mansion, Arlington County, Virginia.

in strict accordance with the General Provisions (Standard Form 23-A), Labor Standards Provisions Applicable to Contracts in Excess of $2,000 (Standard Form 19-A), specifications, schedules, drawings, and conditions, for the following amount(s)

SEE ATTACHED BID SCHEDULE

The undersigned agrees that, upon written acceptance of this bid, mailed or otherwise furnished within calendar days (60 calendar days unless a different period be inserted by the bidder) after the date of opening of bids, he will within 10 calendar days (unless a longer period is allowed) after receipt of the prescribed forms, execute Standard Form 23, Construction Contract, and give performance and payment bonds on Government standard forms with good and sufficient surety.

The undersigned agrees, if awarded the contract, to commence the work within ten (10) calendar days after the date of receipt of notice to proceed, and to complete the work within (See Paragraph 1-1) calendar days after the date of receipt of notice to proceed.

(Continue on other side)

Receipt of Amendments: The undersigned acknowledges receipt of the following amendments of the invitation for bids, drawings, and/or specifications, etc. (*Give number and date of each*):

The bidder represents (*Check appropriate boxes*):

(1) That he ☐ is, ☐ is not, a small business concern. (*For this purpose, a small business concern is a business concern, including its affiliates, which (a) is independently owned and operated, (b) is not dominant in its field of operation, and (c) had average annual receipts for the preceding three fiscal years not exceeding* ~~$5,000,000~~. *For additional information see governing regulations of the Small Business Administration.*) $7,500,000.

(2) (a) That he ☐ has, ☐ has not, employed or retained any company or person (other than a full-time bona fide employee working solely for the bidder) to solicit or secure this contract, and (b) that he ☐ has, ☐ has not, paid or agreed to pay any company or person (other than a full-time bona fide employee working solely for the bidder) any fee, commission, percentage or brokerage fee, contingent upon or resulting from the award of this contract; and agrees to furnish information relating to (a) and (b) above as requested by the Contracting Officer.

(*For interpretation of the representation, including the term "bona fide employee," see Code of Federal Regulations, Title 41, Subpart 1-1.5.*)

(3) That he operates as an ☐ individual, ☐ partnership, ☐ joint venture, ☐ corporation, incorporated in State of _____

Enclosed is bid guarantee, consisting of

in the amount of

NAME OF BIDDER (*Type or print*)	FULL NAME OF ALL PARTNERS (*Type or print*)
BUSINESS ADDRESS (*Type or print*)	
BY (*Signature in ink. Type or print name under signature*)	
TITLE (*Type or print*)	

DIRECTIONS FOR SUBMITTING BIDS

Envelopes containing bids, guarantee, etc., must be sealed, marked, and addressed as follows:

MARK IN LOWER LEFT-HAND CORNER:

"Bid for Restoration of Flower Garden and Summer House at Custis-Lee Mansion, Arlington County, Virginia, IFB 2809."

ADDRESS:

National Capital Office
Design and Construction
Room 224
1100 Ohio Drive, SW.
Washington, D. C. 20242

CAUTION: Bids should not be qualified by exceptions to the bidding conditions.

U.S. GOVERNMENT PRINTING OFFICE : 1961—O-584926

RESTORATION OF FLOWER GARDEN AND SUMMER HOUSE
AT CUSTIS-LEE MANSION
ARLINGTON COUNTY, VIRGINIA

IFB 2809

BID SCHEDULE

Bidder shall enter a price for all items.

It is the intention of the Government to award one contract in accordance with Paragraph 10 of the Instructions to Bidders and to include in the contract as many bid items as available funds will permit.

Each price shall include all labor, material and equipment necessary to complete the particular item of work in accordance with the specifications.

In case of discrepancy between words and figures the words shall prevail.

SEPARATE BIDS

ITEM NO. 1 - LUMP SUM BID for Summer House.

_____ DOLLARS ($ _____)
(Amount in Words) (Figures)

ITEM NO. 2 - LUMP SUM BID for excavating, grading, removal and storage of "Temple of Fame" columns, planting, utilities, walks, and all work except Summer House.

_____ DOLLARS ($ _____)

COMBINED BID

COMBINED BID - LUMP SUM BID for all work.

_____ DOLLARS ($ _____)