GeorgeT Fore & Associates

P.O. Box 12801 Raleigh, North Carolina 27605 (919) 828-1270 782-853)

April 27, 1987

Mr. Jonathan H. Poston, Program Director Historic Charleston Foundation 108 Meeting Street Charleston, S.C. 29401

Dear Mr. Poston:

Thank you for the proposal request for the guidelines and handbook study in Charleston. I am indeed quite interested in working with Historic Charleston in the development of this project. As an architectural conservator, I feel my experiences with the anlaysis of material failures, construction observation and the preparation of specifications for conservation procedures would be a valuable asset to this project.

It is understood that the goal of this study is to develop architectural guidelines and procedures that can be used as a preservation resource for those interested in proper repair and rehabilitation techniques and as preservation standards for those who are responsible for the technical review of architectural projects. This study will use the observation of ongoing and proposed exterior rehabilitation projects within Charleston's historic areas as the principal source of architectural analysis.

The results of this study will be presented in several forms, and will include preservation guidelines; a preservation handbook which incorporates the guidelines along with preservation procedures; an overall project report that evaluates project reviews, material analyses, and technical research; a seminar/workshop on the preservation of exterior wood and masonry elements; and a presentation of the project results to the Board of Architectural Review.

While the principal concern of this study is the analysis of exterior wood and masonry materials, it is recognized that these materials are found in many conditions and forms, and cannot be isolated from other architectural components which may be a factor in their preservation. The scope of the architectural analysis of the various projects should be expected to include comments on the preservation of the exterior as a whole. As an example, one cannot isolate the deterioration of architectural metals from the surrounding wood or masonry.

The principal personnel for this project will be Historic Charleston Foundation's project manager, two interns, and the project consultant, referred to in the request for proposals as the project architect.

Project Tasks

- Technical Literature Research. The interns will be directed to locate literature on all available products, techniques, equipment, and materials that are commonly used or proposed for wood and masonry repair. Sources of information will include trade catalogs and publications, product literature collections, trade organizations, etc. This information will be organized either by product type or material type.
- 2. Project Reviews. Three levels of review will be conducted for the selected projects. The most involved will include a review of the proposed work items, an analysis of affected masonry material, a conservation analysis of the conditions, recommendations on conservation procedures, and site visits to monitor the progress of the work.

The second level of review will involve an analysis of the conditions and conservation recommendations. As above, site visits will be made to monitor the work.

The third level will involve the general observation of repair and rehabilitation techniques to ensure that correct procedures are being employed.

Written reports will be made after each site visit for all three phases. Site visits will be coordinated by the consultant and the interns. Laboratory analyses will be conducted under the supervision and procedures set forth by the consultant.

3. Conservation Studies and Analysis. The analysis of masonry elements will be conducted to determine the following:

Mortar.

- a. Joint tooling.
- b. Composition of percentage by weight and volume to determine content of lime; clay; natural cement; aggregate types; sieve size distribution for sand aggregates.
- c. Presence of bedding and pointing mortars.
- d. Reproduction mortars given in ratio of material by volume.

Stuccoes

- a. Surface textures and scoring patterns.
- b. Same as (b) above.
- c. Reproduction stuccoes given in ratio of materials by volume.

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Brick Units

- a. Sizes and surface textures.
- Nature of soiling or deterioration.
- c. Cleaning procedure/technique.

Wood

- a. Species.
- b. Category of deterioration.
- c. Suitability for repair or replacement techniques.
- d. Causes of coating failures.
- e. Appropriate method(s) for coating removal and surface preparation for painting.

All materials, procedures, and observations will be recorded in the site visit reports, the laboratory analysis sheets, and with photographs.

The technique of masonry analysis will be as described by APT and as employed by the National Park Service, but will also employ the gas measurement method, as employed at the archaeology sites for ancient ruins.

- 4. Seminar/Workshop. A seminar involving a lecture presentation and onsite observations and demonstrations will be conducted by the consultant and interns. The workshop will be based on the Charleston study, and will explain the processes of deterioration, methods of analysis, and both correct and incorrect techniques and materials. Given the body of information, it may be more practical to conduct workshops on different days for wood and masonry.
- 5. Project Report. An overall project report will be prepared and will include all project observation site visit reports, material analysis sheets, observations, and research. The report will make procedural recommendations for wood and masonry rehabilitation projects, and draw conclusions concerning the state of material conservation in Charleston. The report will be submitted for review, with the review comments being incorporated into the final report.
- 6. Guidelines. Based on the analysis in #3 above, outline specifications will be prepared for the repair of wood and masonry. These will include repair procedures for the deterioration problems observed during the site visits and laboratory analysis. The specifications

will be introduced by procedural guidelines that will take the user through the conservation process, from site observations and determination of deterioration problems, to matching colors and textures of masonry and the repair techniques for wood and masonry.

- 7. Handbook. After review, the guidelines and outline specifications of above, will be further developed into a handbook.
- Oral Presentation. The consultant will present the observations, findings, and results of the study to the Board of Architectural Review.
- 9. Project Coordination. Throughout the project most of the above tasks will be performed in coordination with the four project personnel. Because of the amount of time that will be required for site observations in Charleston, weekly or biweekly meetings will be held with all project members.

Schedule

It is felt that approximately two days per week will be required in Charleston during the term of this project, starting with May 7 and ending with July 31. Initially four days will be required to initiate the project; introduce the project members to their individual tasks and responsibilities; set procedures and techniques for laboratory analysis; site observations, recording techniques, and research; and initiate the site observations. Following that I propose either of two schedules for Charleston visits, either two days each week for every Thursday and Friday, or, and the preferred schedule, the last two days of one week and the first two days of the following. These schedules are as follows:

Schedule 1. Two Days Each Week.

May 7-11 May 21-22 May 28-29 June 4-5 June 11-12 June 18-19 June 25-26 July 2-3 July 9-10 July 16-17 July 23-24

Schedule 2. Five Days Biweekly.

May 7-11 May 21-26 June 4-9 June 18-23 July 9-14 July 23-27 It is understood that the following deadlines apply:

- a. Literature search due June 23.
- b. Project report due July 20.
- c. Final report by August 31.
- d. Outline guidelines due July 31.
- e. Final guidelines due August 31.
- f. Oral presentation by September 30.
- g. Seminars, due July site visits.

The costs of the proposed project are as follows:

| Task | Hours | | | | | | | | | | | | | | • | |
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| 1, 2. | 12 125 | | | | | | | | | | | | | | | |
| 3. 4. | 20 16 | | | | | | | | | | | | | | | |
| 5. 6. | 30 25 30 | | | | | : | | | | | | | | | | |
| 7. 8. 9. | 8 12 | | | | | | | | | | | | | | | |
| Total Hours | | @\$35 | /hou | ır. | • | | | | | | | • | | • | • | \$9,730.00 |
| Travel, 8 trips | s | | | | • | | • | • | | | • | • | • | • | • | 575.00 |
| Per diem, 26 da | ıys @\$50/ | day | | | • | • | • | • | • | | • | • | • | • | | 1,300.00 |
| Printing | | | | | | | • | • | | • • | • | • | • | • | • | 100.00 |
| Photography . | | : | . , | | • | | | • | • | | • | • | | • | •_ | 275.00 |
| Total | costs . | | | | • | | • | | | • | | • | • | | | \$11,980.00 |

A payment schedule will be worked out, preferably on a monthly basis, to reflect expenditures and progress.

Attached is an office brochure outlining project experience and services. References are available.

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Thank you again for your invitation.

Sincerely,

George Fore

Architectural Conservator

GF:slw

Enclosure

cc: Grants Division
Historic Programs Section
South Carolina Department of
Archives and History
Box 11,669
Columbia, S.C. 29211