
Project Manual

Volume Two
Division 1
General
Requirements

Grady Health System
Atlanta, Georgia

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PROJECT MANUAL VOLUME 1

BIDDING REQUIREMENTS

Issued as Separate Manual.

PROJECT MANUAL VOLUME 2

DIVISION 1 – GENERAL REQUIREMENTS

DIVISION 1 - GENERAL REQUIREMENTS

01010	SUMMARY OF WORK (Part of PM Vol 1)
01025	PAYMENT, MODIFICATION, AND COMPLETION PROCEDURES
01030	ALTERNATES
01040	COORDINATION
01045	CUTTING AND PATCHING
01070	PROJECT CONDITIONS
01091	REFERENCE STANDARDS
01121	REMOVAL AND DISPOSITION OF MATERIALS AND EQUIPMENT
01200	PROGRESS DOCUMENTATION AND PROCEDURES
01310	SCHEDULE AND WORK SEQUENCE (<i>Part of Volume 1</i>)
01340	SHOP DRAWINGS, PRODUCT DATA AND SAMPLES
01400	QUALITY CONTROL SERVICES
01500	TEMPORARY FACILITIES AND CONTROLS
01501	INTERIM LIFE SAFETY MEASURES & INFECTION CONTROL POLICY
01561	CLEANING
01600	MATERIAL AND EQUIPMENT
01700	CONSTRUCTION PROCEDURES
01720	PROJECT RECORD DOCUMENTS
01740	WARRANTIES AND BONDS

PROJECT MANUAL VOLUME 3

TECHNICAL SPECIFICATIONS

Issued as Separate Manual When Applicable Per Volume 1.

PROJECT MANUAL VOLUME 4

CONTRACTOR PROCEDURE MANUAL

Issued as Separate Manual

SECTION 01025 - PAYMENT, MODIFICATION, AND COMPLETION PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Schedule of values.
 - 2. Payment procedures.
 - 3. Modification procedures.
 - 4. Completion procedures.

1.2 CONTRACT CONDITIONS

- A. See the conditions of the contract for additional requirements.
- B. The Owner will retain from each progress payment an amount equal to 10 percent of the value of the work covered by the progress payment.
 - 1. If the work is 50 percent complete and the character and progress of the work have been satisfactory, the Owner may determine that as long as the character and progress of the work remain satisfactory no additional retainage will be withheld.
 - 2. At substantial completion the Contractor may apply for release of retainage sufficient to bring the total of payments to 95 percent of the contract sum, less those amounts that are withheld to cover incomplete or incorrect work and unsettled claims, as defined elsewhere.
- C. No payment will be made for materials or equipment stored off site.
- D. Payments may be withheld if the Contractor fails to make dated submittals within the time periods specified.
- E. In addition to the requirements of this Section, Contractor shall submit with each Application for Payment, the following: (payment will not be processed without these submittals)

A copy of the "Weekly Toolbox Safety Talks"

A copy of the current Schedule indicating the Project is "On Schedule" or a "Schedule Recovery Plan".

A copy of the "GHS-FD signed Daily Report" for each day of the pay period. (on forms provided by GHS-FD or approved equal)

1.03 DEFINITIONS

- A. Change Proposal Request: Any written request from the Owner to the Contractor for a quotation, price, or breakdown on a change proposed but not ordered.
- B. Final Completion: The stage at which all incomplete and incorrect work has been completed or corrected in accordance with the contract documents.
- C. List of Incomplete Work: A comprehensive list of items to be completed or corrected, prepared by the Contractor for the purpose of obtaining certification of substantial completion. This list is also referred to as a "punchlist."

- D. Modifications: Written amendments to the contract signed by both the Owner and the Contractor, change orders, construction change directives, and written orders for a minor change in the work issued by the Architect.
- E. Schedule of Values: A detailed breakdown of the contract sum into individual cost items, which will serve as the basis for evaluation of applications for progress payments during construction.
- F. Substantial Completion: The time at which the work, or a portion of the work which the Owner agrees to accept separately, is sufficiently complete in accordance with the contract documents so that the Owner can occupy or use the work for its intended purpose.
- G. Time and Material Work: Work which will be paid for on the basis of the actual cost of the work, including materials, labor, equipment, and other costs as defined elsewhere, as documented by detailed records. This basis is also referred to using the terms "cost-plus," "cost of the work," "force account," and similar terms.

1.04 SUBMITTALS

- A. Schedule of Values: First application for payment will not be reviewed without schedule of values.
 - 1. Submit in size not larger than 8-1/2 by 11 inches.
 - 2. Submit 5 copies.
 - 3. Identify with:
 - a. Project name.
 - b. Project number.
 - c. Architect's name.
 - d. Owner's name.
 - e. Contractor's name and address.
 - f. Submittal date.
- B. Applications for Progress Payments: Submit sufficiently in advance of date established for the progress payment to allow for the processing indicated.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 SCHEDULE OF VALUES

- A. Prepare a schedule of values prior to the first application for payment.
- B. Schedule of Values: Break costs down into line items which will be comparable with line items in applications for payment.
 - 1. Coordinate line items in the schedule of values with portions of the contract documents which identify units or subdivisions of work; provide cross-referencing if necessary to clarify.
 - a. Specifically, correlate with the project manual table of contents.
 - 2. Divide major subcontracts into individual cost items.
 - 3. Where applications for payment are likely to include products purchased or fabricated but not yet installed, provide individual line items for material cost, installation cost, and other applicable phases of completion.
 - 4. Show overhead and profit as a single line item.
 - 5. Include the following information for each line item, arranged in columns:
 - a. Item name.
 - b. Applicable specification section.

- c. Dollar value, rounded off to the nearest whole dollar (with the total equal to the contract sum).
 - d. Proportion of the contract sum represented by this item, to the nearest one-hundredth percent (with the total adjusted to 100 percent).
 - 6. Provide the following supporting data for each line item:
 - a. Subcontractor's name.
 - b. Manufacturer or fabricator's name.
 - c. Supplier's name.
- C. Submit schedule of values not later than 10 days prior to submittal of first application for payment.
- D. The Owner will notify the Contractor if schedule is not satisfactory; revise and resubmit acceptable schedule.
- E. Submit a revised schedule of values when modifications change the contract sum or change individual line items.
 - 1. Make each modification a new line item.
 - 2. Show the following information for each line item:
 - a. All information required for original submittal.
 - b. Identification of modifications which have affected its value.
 - 3. Submit prior to next application for payment.

3.2 APPLICATIONS FOR PAYMENT

- A. Application for Payment Forms: Use AIA original current editions of G702, Application and Certificate for Payment, and AIA G703, Continuation Sheet or similar pre-approved forms.
- B. Preparation of Applications for Payment: Complete form entirely.
 - 1. Make current application consistent with previous applications, certificates for payment, and payments made.
 - 2. Base application on current schedule of values and Contractor's construction schedule.
 - 3. Include amounts of modifications issued before the end of the construction period covered by the application.
 - 4. Include signature by person authorized by the Contractor to sign legal documents.
 - 5. Notarize each copy.
 - 6. Submit in accordance with the Invoicing Instructions Section 3.08.
 - 7. Attach sworn statement.
 - 8. Attach revised schedule of values, if changes have occurred, unless application forms already show entire schedule of values.
 - 9. Also attach:
 - a. Progress Report.
- C. Provide the following information with every application for payment which involves work completed on a time and material basis:
 - 1. Detailed records of work done, including:
 - a. Dates and times work was performed, and by whom.
 - b. Time records and wage rates paid.
 - c. Invoices and receipts for products.
 - 2. Provide similar detailed records for subcontracts.
- D. Transmit application for payment with a transmittal form itemizing supporting documents attached.
 - 1. Transmit to Owner in accordance with Invoicing Instructions.

3.3 SWORN STATEMENT

- A. Submit, with each application for payment, a sworn statement on forms provided by GHS-FD or approved equal.

3.4 FIRST PAYMENT PROCEDURE

- A. The first application for payment will not be reviewed until the following submittals have been received:
 1. Certificates of insurance.
 2. Performance and payment bonds.
 3. Schedule of values.
 4. List of subcontractors, principal suppliers, and fabricators.
 5. Contractor's construction schedule.
 6. Submittal schedule.
 7. Quality control activities schedule.
 8. Names of the Contractor's principal staff assigned to the project.
 9. Names of the Contractor's principal consultants.
 10. Copies of building permit and other authorizations from governing authorities.
 11. Schedule of values.
 12. All submittals specified to occur prior to first application for payment or prior to first payment.

3.5 MODIFICATION PROCEDURES

- A. Designate a single individual authorized to receive change documents and who will be responsible for informing others of changes to the work.
- B. Changes in cost resulting from modifications shall include only those costs specified elsewhere in the contract documents.
- C. When requested in writing, the Contractor shall provide sufficient information for evaluation of proposed changes within 14 days.
- D. Provide the following information for every change proposal request:
 1. The amount of change in the contract sum, if any.
 2. The amount of change in the contract time, if any, with explanation.
 3. Cost breakdown, using schedule of values line items, separated into material and labor costs, additions and deletions, and with overhead and profit handled in the same manner as specified for the schedule of values.
 4. The period of time within which the proposed changes in contract sum or time will be valid.
 5. A statement describing the effect the change may have on the work of other prime Contractors.
 6. Upon request, provide the following information:
 - a. Quantities and unit costs of products, labor, and equipment.
 - b. Taxes, insurance, and bonds.
 - c. Overhead and profit.
- E. When changes are performed on a time and material basis, identify the applicable modification on the application for payment.
- F. Provide the following information with every claim for additional costs:
 1. Origin and date of claim.
 2. Detailed records as specified for time and material work.

- G. The Contractor may propose changes.
 - 1. Do not use change order form.
 - 2. Provide the information required for change proposal requests.
 - 3. Describe reasons for change.
 - 4. Document proposed substitutions as specified elsewhere.

3.6 SUBSTANTIAL COMPLETION PROCEDURES

- A. Request for inspection and application for payment may coincide.
- B. The Architect will perform one inspection for substantial completion, upon request of the Contractor.
 - 1. If the Architect is unable to issue the certificate of substantial completion because the work is not considered to be substantially complete, the Contractor shall pay all subsequent inspection costs, including compensation for the Architect's services and expenses.
 - 2. Only one certificate of substantial completion will be issued, for the entire project.
- C. Do not submit request for inspection for substantial completion until the following activities have been completed:
 - 1. Instruction of the Owner's personnel.
 - 2. Removal of temporary facilities.
 - 3. Changeover to permanent locking systems.
 - 4. Final cleaning.
 - 5. All activities specified to occur prior to substantial completion.
 - 6. All activities specified to occur prior to substantial completion.
- D. Do not submit request for inspection for substantial completion until the following submittals have been completed:
 - 1. List of incomplete work.
 - 2. Project record documents.
 - 3. List of incomplete work.
 - 4. Project record documents.
 - 5. All submittals specified to occur prior to substantial completion.
- E. Submit the following with application for payment following substantial completion:
 - 1. Contractor's affidavit of release of liens.
 - 2. Meter readings of all utilities services for which the Contractor has been paying.
 - 3. Request for reduction or release of retainage.
 - 4. Consent of surety to reduction in or partial release of retainage.
 - 5. Final list of incomplete work.
 - 6. Other data required by the contract documents.

3.7 FINAL COMPLETION PROCEDURES

- A. Request for final inspection and final application for payment may coincide.
- B. The Architect will perform one inspection for final completion, upon request of the Contractor.
 - 1. Submit the following with request for inspection:
 - a. Previous inspection lists indicating completion of all items.
 - b. If any items cannot be completed, obtain prior approval of such delay.
 - 2. If the Architect is unable to issue the certificate for final payment because the work is not complete, the Contractor shall pay all subsequent inspection costs, including compensation for the Architect's services and expenses.

- C. Do not submit request for final inspection until the following activities have been completed:
 - 1. Completion of all work, except those items agreed upon by the Owner.
 - 2. Delivery of maintenance materials and tools.
 - 3. Demonstration of all equipment and systems.
 - 4. Final property survey.
 - 5. All activities specified to occur between substantial completion and final completion.

- D. Do not submit request for final inspection until the following submittals have been completed:
 - 1. Startup reports.
 - 2. Final testing, adjusting, and balancing reports.
 - 3. Operation and maintenance data.
 - 4. Demonstration reports.
 - 5. Instruction reports.
 - 6. Warranties.
 - 7. Maintenance agreements.
 - 8. Final progress photographs.
 - 9. All other outstanding specified submittals.

- E. Submit the following with the final application for payment:
 - 1. Certified copy of the previous list of items to be completed or corrected, stating that each has been completed or otherwise resolved for acceptance.
 - 2. Updated final statement, accounting for final changes to the contract sum.
 - 3. Consent of surety to final payment.
 - 4. Final liquidated damages statement.
 - 5. Meter readings of all utilities services for which the Contractor has been paying after substantial completion.
 - 6. Certification that financial obligations to governing authorities and public utilities have been fulfilled.
 - 7. Description of unsettled claims.
 - 8. Certificates of insurance for all coverages specified to commence at final completion.
 - 9. Other data required by the contract documents.

3.8 INVOICING INSTRUCTIONS

- A. Submit in accordance with Schedule "B".

END OF SECTION 01025

SECTION 01030

ALTERNATES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Alternatives:

- a. List of alternates.
- b. Procedures for alternate work.

1.2 ALTERNATIVE LIST

A. Alternate No. 1:

Insert Description

B. Alternate No. 2:

Insert Description.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 ALTERNATES

A. Notify in writing each entity involved of the status of each alternate, immediately after notification by the Owner.

1. Include complete description of any changes agreed upon.

B. Coordinate alternate work with related Work and modify adjacent Work as required.

END OF SECTION 01030-1

SECTION 01040 - COORDINATION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Permits and licenses.
 - 2. Access to the site.
 - 3. Contractor's use of the premises.
 - 4. Coordination requirements.
 - 5. Coordination drawings.
 - 6. Preconstruction meeting.

1.2 REGULATORY REQUIREMENTS

- A. Submit copies of all permits, licenses, and similar permissions obtained.
- B. The space available to the contractor for the performance of the work, either exclusively or in conjunction with others performing other construction as part of the project, is shown on the drawings.
 - 1. Other areas are off limits to all construction personnel.
- C. Signs: Provide signs adequate to direct visitors.
 - 1. Do not install, or allow to be installed, signs other than GHS-FD approved signs..

1.3 CONTINUITY OF SERVICE

- A. All work shall be scheduled with that of other trades. The following conditions shall apply to all affected work.
- B. Before disconnecting any existing systems for changes, the Contractor shall:
 - 1. Have all materials needed stored at the job site.
 - 2. Have assurance that all labor and skilled mechanics needed will be available at the proper time.
 - 3. Estimate the time the system will be out of service and inform GHS-FD in accordance with the GHS-FD's stated policies.
 - 4. Secure approval of the shutdown dates from GHS-FD in writing before disconnecting the system. Shutdowns shall comply with the GHS-FD Shutdown Procedure.
 - 5. Have emergency equipment on-site at all times to remediate accidents. The Emergency "Crash Cart" shall contain at the minimum a Fire Extinguisher, Wet Vacuum, Crimping Tool, & Water Absorbing Media. The crash cart shall be immediately adjacent to the worksite of the utility shut down and multiple floors, or areas shall each have their own crash cart. Contractor shall have at the minimum 1 crash cart for each 5,000sq ft of continuous space or 1 crash cart for each segregated space.
- C. No Work will be performed in the public's views. All work must be done after 7.00 AM, and before 7:00 PM., except for scheduled Utility Shutdowns.
- D. All interruption of building utilities which must remain in service for the occupants of this building or adjacent buildings will be scheduled with the GHS-FD. GHS-FD will notify the contractor if the utility interruption must be rescheduled due to occupant conflicts or other reasons.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 PRECONSTRUCTION MEETING

- A. A preconstruction meeting will be held at a time and place designated by the GHS-FD, for the purpose of identifying responsibilities of the Owner, the Contractors and the Architect's personnel and explanation of administrative procedures and Field Operations.
- B. The contractor shall also use this meeting for the following minimum agenda:
 - 1. Construction schedule.
 - 2. Use of areas of the site.
 - 3. Delivery and storage.
 - 4. Safety.
 - 5. Security.
 - 6. Cleaning up.
 - 7. Subcontractor procedures relating to:
 - a. Submittals.
 - b. Change orders.
 - c. Applications for payment.
 - d. Record documents.
- C. Attendees shall include:
 - 1. The owner.
 - 2. The architect, and any consultants.
 - 3. The contractor and its superintendent.
 - 4. Major subcontractors, suppliers, and fabricators.

3.2 SECURITY PROCEDURES

- A. Limit access to the site to persons involved in the work.
- B. Provide secure storage for materials for which the owner has made payment and which are stored on site.
- C. Secure completed work as required to prevent loss.
- D. Coordinate with the Owner's representative, regarding normal and special security procedures and requirements.

3.3 ACCESS TO THE SITE AND USE OF THE PREMISES

- A. The space available to the contractor for the performance of the work, either exclusively or in conjunction with others performing other construction as part of the project, is shown on the drawings.
 - 1. Other areas are off limits to all construction personnel.
- B. Access to site will be extremely limited; obtain GHS-FD's approval of proposed routes of access.
- C. The existing building will be occupied during the construction period.
 - 1. The Owner will endeavor to cooperate with the contractor's operations when the contractor has notified GHS-FD in writing 7 days in advance of need for changes in operations in order to accommodate construction operations. For utility interruption Contractor is to use "Utility Shutdown Request" form as provided by GHS-FD.
 - 2. Conduct the work so as to cause the least interference with the Owners operations.

- D. No onsite storage will be available – use “just in time deliveries” to stock the construction area.

3.4 COORDINATION

- A. If necessary, inform each party involved, in writing, of procedures required for coordination; include requirements for giving notice, submitting reports, and attending meetings.
 - 1. Inform the owner when coordination of his work is required.
- B. See other requirements in other portions of the contract documents.
- C. Prepare the coordination drawings specified in product sections.
 - 1. Where space is limited, show plan and cross-section dimensions of space available, including structural obstructions and ceilings as applicable.
 - 2. Coordinate shop drawings prepared by separate entities.
 - 3. Show installation sequence when necessary for proper installation.

3.5 COORDINATION WITH GRADY HEALTH SYSTEM

- A. Occupied areas include all areas in which the hospital's regular operations will be going on or to which the Hospital requires access during the construction period, whether conducted by the Hospital or his customers, clientele, or the public. Activities of the Hospital will not be cause for claim of additional time or compensation.
- B. Limit access through occupied areas to those days and times which GHS-FD approves.
- D. When the following must be modified notify GHS-FD 7 days in advance in writing. Provide alternate facilities acceptable to the GHS-FD:
 - 1. Emergency means of egress.
 - 2. Entrances which must remain open.
 - 3. Utilities which must remain in operation.
 - 4. Informational signage.
- E. If the Owner enters into a contract with any other contractor for any Work to be done on this Project, then said other contractor shall not only cooperate with any other such contractor and with the Contractor as provided in Article 6 of the Conditions, but shall also conform to all reasonable directions given by the Contractor in regard to the scheduling of the Work. Such other contractors shall maintain labor practices consistent with those of the Contractor. The Contractor shall cooperate with other such contractors in affording them access to the Project and use of vertical transportation, hoisting equipment, temporary utilities and other equipment and facilities to reasonably enable such other contractor to complete its Work.

3.6 COORDINATION LAYOUT DRAWINGS

- A. Prepare and furnish the following Coordination Layout Drawings to the Architect as Informational Submittals.
 - 1. Floor/ceiling layout plans.
 - 2. All work to be done in the ceiling area of the floor below the work site.
 - B. Refer to the General Conditions for the requirements for Informational Submittals. The Architect will not take action or review these Informational Submittals except as may be necessary to insure compliance with these provisions.
 - C. Produce composite Layout Drawings which integrate all components of the work of Division 15, and the work of the other trades and Divisions listed hereinafter, for all work to be furnished and installed.
 - D. Show all piping, conduits, and other components which are 4 inches or greater in their least
- GHS-FD

dimension. Show components which are less than 4 inches in their greatest dimension only if needed to coordinate the work or verify routing conflicts.

- E. Show the following:
 - 1. Ductwork (sheet metal).
 - 2. HVAC piping.
 - 3. Domestic plumbing systems.
 - 4. HVAC equipment.
 - 5. Electrical raceways and ceiling mounted equipment.
 - 6. Fire protection (sprinkler) piping.
 - 7. Other work or products of equal size or greater which takes up physical space in the area covered and which may be essential for coordination.
- F. Background information shall be a duplicate of Ductwork and HVAC Piping Shop Drawings called for to be furnished in Division 15.
- G. Layout Drawings may be processed independently of Shop Drawing submittals except background data shall be identical to data on Shop Drawings called for.
- H. Identify areas of conflict, if any, and any changes or deviations from Contract requirements.
 - 1. Where space is restricted, show plan and cross-section dimensions of space available, including structural obstructions and ceilings as applicable.
- I. Style, layout, format, scale, shall be as called for Ductwork Shop Drawings in Division 15.
- J. Show the work of other trades including, but not limited to, ceiling grids, light fixtures, soffits, raceways, steel framing, columns and beams. Show installation sequence when necessary for installation.
- K. Include a sign-off block in the border of each sheet or drawing to indicate review of all trades who have work in ceilings including electrical, fire protection, and communications. Submit to the Architect only after all trades involved have signed-off as evidenced by signature and date.
- L. Include the submittal of Layout Drawings in the Schedule of Submittals called for in Section 01300. Produce and submit Layout Drawings in a timely manner in keeping with the Construction Schedule and to allow time for completion of drawing(s) and submittal prior to beginning actual physical work in the areas affected.
- M. Unless recognized and permitted by the Construction Schedule do not wait for final approval of Shop Drawings prior to beginning, completing, or submitting Layout Drawings called for.
- N. Include a revision block in the drawing format and update Layout Drawings on a regular basis to reflect changes and revisions.
- O. Final version of Layout Drawings shall reflect actual as-built conditions, shall be furnished to the Architect at Substantial Completion and shall be part of the requirement of the Contractor to furnish Record Drawings as called for by Section 01800.

END OF SECTION 01040

SECTION 01045 - CUTTING AND PATCHING

PART 1 - GENERAL

1.1 DESCRIPTION OF REQUIREMENTS:

- A. Definition: "Cutting and patching" is hereby defined to mean alteration and repair of nominally completed and previously existing work for any of the following reasons, but not necessarily for only the following reasons:
 - 1. To accommodate coordination of work;
 - 2. For installation of other work;
 - 3. To uncover other work for access or inspection;
 - 4. To obtain samples for testing, or for similar purposes.

- B. Specifically excluded from the definition are cutting and patching operations which are integral to the manufacturing, fabricating, erecting, and installing processes for individual units of work. Drilling the work to install fasteners and similar operations are also excluded from the definition of cutting and patching.

- C. Related Work Described Elsewhere:
 - 1. Demolition is a related but separate category of work which may or may not also require cutting and patching as defined in this section; refer to Section 02070 for demolition requirements.
 - 2. Restoring or removing and replacing non-complying work is specified elsewhere in the Contract Documents, and particularly in the General Conditions, but such restriction or removing and replacing of non-complying work may require cutting and patching operations as specified in this section.
 - 3. Refer to other sections of these Specifications for specific cutting and patching requirements and limitations applicable to individual units of work.

1.2 QUALITY ASSURANCE:

- A. Structural Work: Do not cut and patch structural work in a manner resulting in a reduction of load-carrying capacity or load/deflection ratio. Obtain Architect's approval prior to cutting and patching the following categories of work:
 - 1. Existing columns.
 - 2. Existing beams.
 - 3. Existing structural slabs.
 - 4. Exterior curtain wall construction.
 - 5. Pressurized piping, vessels, and equipment.

- B. Operational and Safety Limitations: Do not cut and patch operational elements and safety related components in a manner resulting in a reduction of capacities to perform in manner intended or resulting in decreased operational life, increased maintenance, or decreased safety.

- C. Visual Requirements: Do not cut and patch work exposed on exterior or exposed in occupied spaces of building in a manner resulting in a reduction of visual qualities or resulting in substantial evidence of cut and patch work, both as judged solely by Architect. Remove and replace work judged by Architect to be cut and patched in visually unsatisfactory manner.
 - 1. Engage recognized expert entities to perform cut and patch work, and engage original installer or fabricator for such work whenever practicable.

1.3 SUBMITTALS:

- A. Proposals for Cutting and Patching: Where prior approval of cutting and patching is required, submit proposal well in advance of time work is to be performed, and request approval to proceed. Include description of why cutting and patching cannot reasonably be avoided, how it will be performed, how any structural elements will be reinforced, products to be used, firms and tradesmen to perform the work, approximate dates of work, and anticipated results in terms of variations from the work as originally completed.
 - 1. Approval by Architect to proceed with cutting and patching does not waive right to later require complete removal and replacement of work found to be cut and patched in unsatisfactory manner.

PART 2 - PRODUCTS

2.01 MATERIALS:

- A. General: Except as otherwise indicated or approved by Architect, provide materials for cutting and patching which will result in equal or better work than work being cut and patched. Comply with requirements of technical sections for materials and installation methods in each case.

PART 3 - EXECUTION

3.1 PREPARATION:

- A. Temporary Support: Provide adequate temporary support for work to be cut, to prevent failure; do not endanger other work.
- B. Protection: Provide adequate protection of other work during cutting and patching, to prevent damage, and provide protection of work from adverse weather exposure.
- C. Obtain a "Cutting and Burn Permit" from the GHS-FD project manager prior to scheduling the work

3.2 CUTTING AND PATCHING PROCEDURES:

- A. General: Employ only skilled tradesmen to perform cutting and patching. Proceed with cutting and patching at earliest feasible time, and perform the work promptly.
- B. Cutting: Cut work by methods least likely to damage work to be retained and work adjoining.
 - 1. Where physical cutting action is required, cut work with sawing and grinding tools, not with hammering and chopping tools. Core drill openings through concrete work.
- C. Patching: Patch with seams which are durable and as invisible as possible. Comply with specified tolerances for the work.
- D. Tolerances: Fit work airtight to pipes, sleeves, ducts, conduits, and other penetrations through surfaces.
- E. Finishes: Restore exposed finishes of patched areas, and where necessary, extend

finished restoration onto retained work adjoining, in a manner which will eliminate evidence of patching.

1. Where patch occurs in smooth painted surface, extend final paint coat over entire unbroken surface containing patch, after patched area has received prime and base coats.

SECTION 01070 - PROJECT CONDITIONS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. General project conditions.

1.2 PROJECT CONDITIONS

- A. Some areas of existing building will be occupied during the period in which the work will be conducted; avoid interference with use of those areas and interruption of access to them.
- B. Take precautions to prevent fires and to facilitate fire-fighting operations.
 - 1. Keep flammable materials in non-combustible containers; store away from potential fire sources; remove flammable waste regularly.
 - 2. Keep temporary and permanent fire fighting facilities readily accessible; keep fire fighting routes open.
 - 3. Smoking is prohibited throughout hospital.
 - 4. Carefully supervise the operation of potential fire sources, including heating units.
 - 5. Conduct welding operations in manner to prevent fire; comply with local regulations.
- C. Take precautions to prevent accidents due to physical hazards:
 - 1. Provide barricades, warning lights, or signs as required to inform personnel and the public of the hazard being protected against.
 - 2. Safety barricades: Comply with regulations.
 - 3. Provide temporary walkways where walking surfaces are hazardous.
 - 4. Notify the Owner before beginning work that involves hazardous operations, including use of explosives and the like.
- D. Take care to prevent pollution of air, water, and soil.
 - 1. Comply with environmental protection regulations.
 - 2. Limit effluent and rainwater runoff into waterways as required by regulations.
 - 3. Do not dump contaminants in areas that will result in contamination of waterways.
- E. Minimize discharge of effluent and rainwater runoff into sewers.
 - 1. Control sediment discharge into sewers; filter out construction debris, soil, and contaminants.
 - 2. Comply with regulations and orders of public utilities regarding use of sewers.
 - 3. Where disposal of effluent or rainwater by means of sewers is not lawful or is not possible, provide alternative methods of disposal.
- F. Prevent erosion due to rainwater runoff.
- G. Control windblown dust; prevent erosion to site and nuisance to neighbors.
- H. Do not use tools or equipment which produce harmful levels of noise.

- I. Keep the site and adjacent public ways free of hazardous and unsanitary conditions and public nuisances.
- J. Control rodents and other pests; prevent infestation of adjacent sites and buildings due to pests on this site.
- K. Keep public streets free of debris due to this work.
- L. Provide adequate traffic control by means of signs, signals, and flagmen, as necessary.
- M. Provide temporary means of draining roofs where required.
- N. Conduct construction operations so that no part of the work and no part of the existing construction is subjected to damaging operations or influences which are in excess of those to be expected during normal occupancy conditions.
- O. Conduct construction operations so that waste of power, water, and fuel is avoided.
- P. Provide temporary supports as required to prevent movement and structural failure.
- Q. Install products only during environmental conditions which will ensure the best possible results.
- R. Provide (1) one 20# ABC Fire extinguisher at each exit location from the space, or provide in accordance with OSHA requirements which ever is more stringent.
- S. Provide (1) wet vac and (1) crimping tool on project at all times along with water absorbing materials.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01070

SECTION 01091

REFERENCE STANDARDS

PART 1 GENERAL

APPLICABILITY: See individual section(s) to determine which portions of the Work are required to comply with which standard(s).

**ALL STANDARDS WILL BE THE LATESTED EDITION ADOPTED BY THE AHJ.
(USE UPDATED REFERENCE STANDARDS FROM THE A/E TEAM FOR A SPECIFIC PROJECT)**

- 1.1 AGC – THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA
 - A. NONE.
- 1.2 AIA – THE AMERICAN INSTITUTE OF ARCHITECTS
 - A. AIA: Guidelines for Design & Construction of Hospital & Health Care Facilities
- 1.3 ANSI – AMERICAN NATIONAL STANDARDS INSTITUTE
 - A. ANSI A10.6 – 1990 – American National Standard for Construction and Demolition Operations – Safety Requirements for Demolition Operations, 1990., and current editions of all other applicable ANSI Standards.
- 1.4 ASTM – AMERICAN SOCIETY FOR TESTING AND MATERIALS
 - A. ASTM E 699-03 – Standard Practice for Evaluation of Agencies Involved in Testing, Quality Assurance, and Evaluating Building Components.
 - B. ASTM E699-99 - Standard Criteria for Evaluation of Agencies Involved in Testing, Quality Assurance, Evaluating Building Components in Accordance with Test Methods Promulgated by ASTM Committee E-6.
- 1.5 BOGA – BUILDING OFFICIALS & CODE ADMINISTRATORS INTERNATIONAL, INC.
 - A. International Building Codes.
- 1.6 CSI – CONSTRUCTION SPECIFICATIONS INSTITUTE, THE
 - A. Manual of Practice; 2004
- 1.7 EJCDC – ENGINNERS JOINT CONTRACT DOCUMENTS COMMITTEE, THE
 - A. EJCDC 1910-8-83 – Standard General Conditions of the Construction Contract; 1983.
 - B. EJCDC 1910-8-E – Application for Payment; 1983.
- 1.8 FM – FACTORY MUTUAL SYSTEM
 - A. FM P7825 – Approval Guide 2006.
- 1.9 ICBO – INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS, w/ Georgia Amendments
 - A. 2000 International Building Code.

- B. 2000 International Mechanical Code.
 - C. 2000 International Plumbing Code.
 - D. 2002 International Electrical Code.
 - E. 2003 International Fire Code.
 - F. 2000 International Energy Conservation Code.
 - G. 2000 NFPA 101 Life Safety Code.
 - H. Georgia Accessibility Code – Rules and Regulation of the Georgia Safety Fire Commission – Ch 120-3-20.
 - I. SBCCI Existing Building Code, 1988 ed.
- 1.10 NEMA – NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
- A. NEMA WD 6-1988 – Wiring Devices – Dimensional Requirements; 1988.
- 1.11 NFPA – NATIONAL FIRE PROTECTION ASSOCIATION
- A. NFPA 241 – Standard for Safeguarding Construction, Alteration, and Demolition Operations, 2004., and current editions of all other applicable NFPA Standards
- 1.12 NIBS – NATIONAL INSTITUTE OF BUILDING SCIENCES
- A. Asbestos Abatement and Management in Buildings, Model Guide Specifications; 1992.
- 1.13 UL – UNDERWRITERS LABORATORIES INC.
- A. Building Materials Directory; 2005
- 1.14 US – UNITED STATES GOVERNMENT
- A. 29 CFR 1910 – Occupational Safety and Health Standards; Occupational Safety and health Administration; 1990.
 - B. 29 CFR 1910.1001 – Asbestos, Tremolite, Anithophyllite, and Actinolite; Occupational Safety and Health Administration; 1990.
 - C. 29 CFR 1926 – Safety and Health Regulations for Construction; Occupational Safety and health Administration; 1990.
 - D. 40 CFR 61 – National Emission Standards for Hazardous Air Pollutants; Environmental Protection Agency; 1991.
 - E. NFGS – 02080 – Removal & Disposal of Asbestos Materials; Department of the Navy 1987.
- 1.15: OTHER:
- A. State of Georgia Fire Laws, Rules of the Safety Fire Commisioner, OCGA Chapters

120-3-20 current edition

- B. JCAHO
- C. CDC
- D. Project Specific ISLM and Infection Control Measures.

1.15 STANDARDS

A. Standards and their requirements as noted, specified, or made reference to in the individual specifications sections are to be made part of the requirements of the Contract. The Contractor is publishing agencies and common abbreviations:

- AA Aluminum Association Inc.
818 Connecticut Avenue, NW
Washington, DC 20006
- AAMA Architectural Aluminum Manufacturers Association
35 East Wacker Drive
Chicago, IL 60601
- AASHO American Association of State Highway Officials
- ACI American Concrete Institute
P.O. Box 19150
Detroit, MI 48219
- AIA American Institute of Architects
1735 New York Avenue, N.W.
Washington, DC 20006
- AISC American Institute of Steel Construction
400 North Michigan Avenue, 8th Floor
Chicago, IL 60611
- ANSI American National Standards
1430 Broadway
New York, NY 10018
- ASTM American Society for Testing and Materials
1916 Race Street
Philadelphia, PA 19103
- AWI Architectural Woodwork Institute
2310 South Walter Reed Drive
Arlington, VA 22206
- AWS American Welding Society
P.O. Box 351040
550 LeJeune Road, NW
Miami, FL 33135
- DHI Door Hardware Institute
7711 Old Springhouse Road

McLean, VA 22102

- FM Factory Mutual System
1151 Boston Providence Turnpike
Norwood, MA 02062
- GA Gypsum Association
1603 Orrington Avenue
Evanston, IL 60201
- NAAMM National Association of Architectural Metal
Manufacturers 600
South Federal Street, Suite 400
Chicago, IL 60605
- NWWDA National Wood Window and Door Association
1400 Touhy Avenue
Des Plaines, IL 60018
- PCI Prestressed Concrete Institute
20 North Wacker Drive
Chicago, IL 60606
- SMACNA National Sheet Metal and Air Conditioning Contractors
Association, Inc.
8224 Old Court House Road, Tysons Center
Vienna, VA 22180
- TCA Tile Council of America
P.O. Box 326
Princeton, NJ 08540
- UL UL Underwriters' Laboratories
333 Pfingsten Road
Northbrook, IL 60052]]

B. Applicability of Standards: Except where more explicit or more stringent requirements are written into the CONTRACT DOCUMENTS, generally accepted construction industry standards not specifically referenced have the same force and effect as if bound into or copied directly into the CONTRACT DOCUMENTS. All such industry standards are made a part of the CONTRACT DOCUMENTS by reference.

B. Reference standards (standards referenced directly in the CONTRACT DOCUMENTS) take precedence over non-referenced standards that are recognized in the industry for applicability to the Work. Non-referenced Standards: Except as otherwise limited by the Contract Documents, non-referenced standards generally recognized in the construction industry are defined as having direct applicability to the Work, and will be enforced by the Architect in evaluating and determining the performance of the Work. The decision as to whether an industry code or standard is applicable to the Work, or as to which of several standards are applicable, is the sole responsibility of the Architect and Engineer.

- D. Conflicting Requirements: Where compliance with two or more standards is specified, and where these standards establish different or conflicting requirements for minimum quantities or quality levels, the most stringent requirement will be enforced, unless the CONTRACT DOCUMENTS specifically indicate a less stringent requirement. Refer requirements that are different, but apparently equal, and uncertainties as to which quality level is more stringent to the Architect and Engineer for a decision before proceeding.

END OF SECTION

SECTION 01121 - REMOVAL AND DISPOSITION OF MATERIALS AND EQUIPMENT

PART 1 GENERAL

1.1 DESCRIPTION OF WORK

- A. This Section covers all operations in connection with removal, relocation, and salvage of materials and equipment as shown on the Drawings and specified herein.
- B. Related Work Specified Elsewhere:
 - 1. Reinstallation of relocated existing equipment and materials shall be as specified in the various sections covering installation of corresponding items of new materials or equipment.

1.2 JOB CONDITIONS

- A. Disconnection of Services.
 - 1. Prior to starting removal operations, in the remodeled areas and on equipment to be removed, all utility lines which will be affected shall be disconnected as indicated or directed. Open pipe ends shall be sealed or plugged.
 - 2. Except where otherwise directed, all conduit and piping shall be cut off below floor level and back of wall and ceiling surface as applicable. All such surfaces to be exposed shall thereafter be patched, replaced or otherwise repaired and shall be left in condition comparable to new Work.
 - 3. Arrangements shall be made in advance to prevent interference with utility services to rooms and areas not otherwise affected by Work under this Contract and such arrangements shall be submitted to the Architect for review prior to commencement of the Work.
- B. Protection:
 - 1. Protection of persons and property during removal operations shall be provided as required under GENERAL CONDITIONS for all Work. Explosives shall not be used. The Work shall proceed in such manner as to minimize the spread of dust and flying particles.
 - 2. Temporary enclosures shall be provided around all cutting and concrete removal operations on the interior of the building.
 - 3. The sequence of operations shall be such that maximum practicable protection from inclement weather will be provided for materials and equipment located in partially dismantled structures.
 - 4. Prior to removal of exterior wall, Contractor shall install a temporary weatherproof and dust proof enclosure, which shall be removed after the installation of the permanent wall.
 - 5. Contractor shall avoid installation of permanent type fastenings securing temporary enclosure. Finish Work, which is damaged by the installation of the temporary enclosure, shall be repaired or replaced as determined by the Architect at no additional cost to the Owner.
- C. Support Continuity of Existing Items to Remain.
 - 1. Where piping, conduit, cables, fixtures or items of a similar nature are found to be supported by walls, ceilings or other elements scheduled to be removed, but the function of these items is to remain, the Contractor shall provide hangers, anchors or support brackets fastened to remaining structural elements at no additional cost to the Owner.
 - a. Hangers, anchors or brackets required for support shall be as specified in the various sections of this Specification for corresponding new item installations.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.1 INSTALLATION/APPLICATION/PERFORMANCES/ERECTION

- A. Operational Procedures.
 - 1. Operational procedures shall be optional with the Contractor insofar as such procedures do not infringe on the progress of the Work or salvage requirements.

2. Where salvaging is required for certain items of equipment or materials, the Contractor may request a joint inspection to determine their condition prior to removal operations.

B. Disposition of Materials and Equipment.

1. Materials and equipment indicated to be removed from the existing structure and reinstalled shall be jointly inspected prior to removal or dismantling by the Contractor and the Architect and an Agreement will be made briefly setting forth the condition of the material and equipment. The Architect may order the Contractor to repair defective materials or equipment found in this inspection in accordance with the requirements of the GENERAL CONDITIONS.
2. Any material or equipment damaged by or through the negligence of the Contractor during dismantling, storage or reinstallation shall be repaired at no additional cost to the Owner, or may, at the Contractor's option, be replaced with new materials or equipment of identical types.
3. Reinstallation of materials and equipment shall be in accordance with the applicable sections of these Specifications covering the new Work.
4. Material not specified to be salvaged or reinstalled in new Work shall be considered as scrap and shall be disposed of by the Contractor off the Owner's premises. Credit for the value, if any, of materials or equipment disposed of, off the Owner's premises shall have been reflected in the bid.
5. All items unless tagged by the Owner shall become the property of the Contractor and shall be removed completely away from the site by him.

C. Existing Work.

1. Portions of existing Work shown to be removed shall be disposed of as follows:
 - a. Concrete Work shall be removed and disposed of as rubble.
 - 1) Edges of the existing floor slabs indicated to be removed shall be outlined by scoring the surface to a depth of 2 inches (50 mm) with a concrete saw.
 - b. Masonry shall be removed and disposed of as rubble.
 - c. Carpentry. Lumber, moldings and finished boards shall not be salvaged.
 - d. Structural steel.
 - d. Structural steel and metal decking.
 - 1) Dismantle at field connections in such manner as to prevent bending or damage to members. Use of gas-cutting torch will not be permitted except on materials to be scrapped.
 - e. Miscellaneous items.
 - 1) Fabricated items indicated to be reinstalled shall be removed as complete units.
 - 2) Doors and door frames indicated to be reinstalled shall be carefully removed with hardware left attached, except that door closers shall be removed. Door frames shall be braced at the bottom.
 - f. Glass to be reused on exterior windows shall be carefully removed and stored in a designated area.

D. Mechanical Equipment and fixtures.

1. Existing items of mechanical equipment and fixtures shown to be removed and reused in the Work:
 - a. General. Each item indicated for removal shall be stored as directed. Each unit shall have the auxiliary equipment required for normal operation of the unit salvaged and attached therewith. Service valves shall be removed and wired to the unit.

3.2 ADJUSTMENT AND CLEANING

- A. Upon completion of each day's Work the entire area shall be cleaned of all debris.
- B. Debris shall not be allowed to accumulate at any time in such areas as food preparation, food storage, dining areas, or operating rooms.

END OF SECTION

SECTION 01200 - PROGRESS DOCUMENTATION AND PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Progress documentation requirements:
 - a. Contractor's construction schedule.
 - b. Progress photographs.
 - 2. Progress procedures:
 - a. Progress meetings.
- B. Allowance: Allowance for cost of producing progress photographs is described elsewhere in Division 1.

1.2 SUBMITTALS

- A. Contractor's Construction Schedule.
 - 1. Submit within 10 days after notice to proceed.
 - 2. Submit revised schedule with application for payment.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Prepare and submit a construction schedule to GHS-FD for approval.
- B. Provide construction schedule in the form of bar charts or network analysis diagrams, with supporting reports.
 - 1. Where related activities must be performed in sequence, show relationship graphically.
 - 2. Show dates of:
 - a. Each activity that influences the construction time.
 - b. Occupancy of public property and obstruction of the public way.
 - c. Preconstruction meeting.
 - d. Substantial and final completion, with time frames for the Architect's completion procedures.
 - 3. In developing the schedule take into account:
 - a. Interruption of services to occupied facilities.
 - b. Site limitations.
 - 4. Include the following supporting report(s):
 - a. Data summary.
 - b. Critical path summary.
- C. GHS-FD will notify the Contractor if schedule is not satisfactory; revise and resubmit.
 - 1. Resubmit within 7 days.
- D. Make and distribute copies of schedule to the Architect, to the Owner, to subcontractors, and to other entities whose work will be influenced by schedule dates.
 - 1. Hang a copy of the schedule up in each field office or meeting room.

- E. Update the schedule whenever changes occur or are made, or when new information is received, but not less often than at the same intervals at which applications for payment are made.
 - 1. Indicate changes made since last issue; show actual dates for activities completed.
 - 2. Submit updated schedule with application for payment.
 - 3. Issue updated schedule with report of meeting at which revisions are made.
 - 4. Issue updated schedule in same manner as original schedule.
 - 5. Include the same supporting reports as for original schedule.

3.2 PROGRESS REPORTS

- A. Progress Photographs:
 - 1. Take photos from positions chosen to show the current status of completion and progress since previous photos were taken.
 - 2. Take photos as directed by the Architect.

3.3 PROGRESS MEETINGS

- A. Schedule and conduct periodic progress meetings during construction period.
 - 1. Have meetings once a month.
 - 2. Notify the Architect and the Owner at least one week in advance of date of meeting; the Architect and the Owner may attend.
- B. The following are required to attend:
 - 1. Project superintendent.
 - 2. Major subcontractors and suppliers.
 - 3. Others who have an interest in the agenda.
 - 4. Owner's Representative.
- C. Prepare and distribute agenda prior to meetings; cover the following topics when applicable:
 - 1. Review minutes of previous meeting.
 - 2. Status of submittals and impending submittals.
 - 3. Actual progress of activities in relation to the schedule.
 - 4. Actual and anticipated delays, their impact on the schedule, and corrective actions taken or proposed.
 - 5. Actual and potential problems.
 - 6. Status of change order work.
 - 7. Effect of proposed changes on schedule and coordination.
 - 8. Status of corrective work ordered by the Architect.
 - 9. Progress expected to be made during the next period.
- D. Record minutes and distribute copies within 3 days to the Architect, to the Owner, to all participants, and to all entities affected by decisions made.

END OF SECTION 01200

SECTION 01340 - SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

PART 1 GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Submit shop drawings, product data, and samples required by Contract Documents.
- B. All Drawings, product data, and samples submitted shall be accompanied by the shop drawing transmittal. The form shall be submitted in as many copies as required for the shop drawings. Each transmittal shall be numbered consecutively in the space provided for "transmittal number." This number will form a serial number for identifying each submittal. If initial submittal, indicate by check mark. If re submittal of an item, indicate by check mark and insert the previous transmittal number of item being resubmitted. Form shall be used for material, apparatus or equipment submitted under separate Sections of the Specifications. Where deviations from Engineer's Drawings or Specifications exist on material submitted for review, these deviations shall be clearly marked and noted or listed in transmittal letter. On resubmittals, the Contractor shall circle the changed items to call attention to changes from the previous submittal. Do not resubmit "approved as noted" shop drawings.

1.2 RELATED REQUIREMENTS

- A. REQUEST FOR PROPOSAL BY GRADY HEALTH SYSTEMS.

- A. Section 01720: PROJECT RECORD DOCUMENTS

- B. Designate in the construction schedule, or in a separate coordinated schedule, the dates for submission and the dates that shop drawings, product data, and samples will be needed.

1.3 SHOP DRAWINGS

- A. Drawings shall be presented in a clear and thorough manner.
 - 1. Details shall be identified by reference to sheet and detail, schedule or room numbers shown on Contract Drawings.

1.4 PRODUCT DATA

- A. Preparation:
 - 1. Clearly mark each copy to identify pertinent products or models.
 - 2. Show performance characteristics and capacities.
 - 3. Show dimensions and clearances required.
 - 4. Show wiring or piping diagrams and controls.
- B. Manufacturer's standard schematic drawings and diagrams:
 - 1. Modify drawings and diagrams to delete information, which is not applicable to the Work.
 - 2. Supplement standard information to provide information specifically applicable to the Work.

1.5 SAMPLES

- A. Office samples shall be of sufficient size and quantity to clearly illustrate:

1. Functional characteristics of the product, with integrally related parts and attachment devices.
 2. Full range of color, texture, and pattern.
- B. Field samples and mock-ups: (If required by the Technical Specifications)
1. Contractor shall erect samples and/or mock-ups, at the Project Site, at a location acceptable to the Owner.
 2. Size or area: As specified in the respective Specification Section.
 3. Fabricate each sample and mock-up complete and finished.
 4. Remove mock-ups at conclusion of Work or when acceptable to the Engineer.

1.6 CONTRACTOR RESPONSIBILITIES

- A. Review and approve shop drawings, product data, and samples prior to submission.
- B. Determine and Verify:
 1. Field measurements.
 2. Field construction criteria.
 3. Catalog numbers and similar data.
 4. Conformance with Specifications.
- C. Coordinate each submittal with requirements of the Work and of the Contract Documents.
- D. Notify the Engineer in writing, at the time of submission, of any deviations in the submittals from requirements of the Contract Documents.
- E. Begin no fabrication or Work which requires submittals until return of submittals by the Engineer.

1.7 SUBMISSION REQUIREMENTS

- A. Make submittals promptly and in such sequence as to cause no delay in the Work or in the Work of any other Contractor.
- B. Submittals shall contain:
 1. The transmittal form properly completed.
 2. The names of:
 - a. Supplier
 - b. Manufacturer
 3. Identification of the product, with the Specifications Section Number.
 4. Field dimensions, clearly identified as such.
 5. Relation to adjacent or critical features of the Work or materials.
 6. Identification of deviations from Contract Documents.
 7. Identification of revisions on resubmittals.
 8. Contractor's stamp, initialed or signed, certifying to review and approval of submittal, verification of products, field measurements and field construction criteria, and coordination of the information within the submittal with requirements of the Work and of Contract Documents.
- C. The Contractor shall furnish the following: Two (2) copies of the transmittal sheet, four (4) copies of product data, and two (2) samples of materials, unless otherwise directed or specified.
- D. The Engineer will retain one (1) copy of each item submitted and return remainder to the Contractor after his review. The Contractor shall maintain one complete set of shop drawings at the Project Site for his use and available to the Engineer at all times. The

Contractor shall reproduce as many copies of the shop drawings as required for distribution for proper execution of the Work.

- F. List of shop drawings, product data, and samples. Refer to the following list and to each Specification Section, Furnish only items required.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION 01340

SECTION 01400 - QUALITY CONTROL PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. General quality control activities.
- B. Quality control activities required are specified in other sections.

1.2 SEQUENCING AND SCHEDULING

- A. Coordinate quality control activities to avoid delay and to make it unnecessary to uncover work for testing or inspection.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 GENERAL

- A. Provide work of the specified quality; where quality level is not indicated, provide work of quality customary in similar types of work.
 - 1. Where codes, laws, or regulations require work of higher quality or performance, provide work complying with those codes, laws, and regulations.
 - 2. Where two or more quality provisions of the contract documents conflict, comply with the most stringent requirement; where requirements are different but apparently equal, and where it is uncertain which requirement is most stringent, obtain clarification from the Architect before proceeding.
 - 3. Actual quality may exceed the specified quality; verify that such differences are acceptable to the Owner (other criteria may make excessive quality undesirable).
- B. Control products, suppliers, manufacturers, site conditions, installers, and workmanship in such a manner as to produce work of the specified quality.
- C. Comply with manufacturers' instructions and recommendations.
 - 1. Keep a record of instructions and recommendations which supplement or conflict with the manufacturer's written instructions.
 - 2. When manufacturers' instructions and recommendations conflict with the contract documents, obtain clarification from the Architect before proceeding.
- D. Use installers who are capable of producing work of the specified quality.
- E. Perform all quality control activities specified unless indicated to be performed by other entities.

3.2 PROTECTION AND REPAIR

- A. When work is uncovered during quality control activities, provide protection from damage.
- B. Correct work damaged by quality control activities; where repair is indicated as an unacceptable method, replace the work.

END OF SECTION 01400

01500 TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 FACILITIES:

- A. Temporary offices: Provide sufficient space for Contractor's personnel.
 - 1. Provide temporary office facilities complete with lighting, heating, air conditioning and telephone service.
 - 2. Location of temporary office shall be subject to GHS-FD's acceptance.
- B. Temporary storage facilities: Provide weather tight storage sheds with raised floors. Sheds shall be of type and size required by storage conditions. Locations and adequacy of storage facilities shall be subject to GHS-FD's acceptance.
- C. Temporary construction fence:
 - 1. Provide a temporary construction fence in location acceptable to GHS-FD enclosing dumpster and temporary storage facilities. Fence shall be 6'-0" high, minimum, chain link type. Provide posts, top rails, braces and other fittings and accessories for rigid installation. Fencing, if not new, shall be of good appearance and condition.
 - 2. Provide gates as required for Contractor's operations. Gates shall be of same height as fencing. Keep gates locked at all times other than normal construction hours. Furnish a set of gate lock keys to GHS-FD.
 - 3. Maintain fences until construction is completed, outdoor storage areas are no longer in use, unless otherwise directed by the GHS-FD.
- D. Barricades/Barriers/Partitions: Provide as necessary for security and safety and as required by authorities having jurisdiction and the GHS-FD's Construction Project Standards.
- E. Site access and parking:
 - 1. Parking: No on-site parking for construction personnel will be available.
- F. Storage and staging areas: Provide at locations acceptable to the GHS-FD. The Contractor must arrange for the receiving and storage of materials to complete the project. Additionally, the use of the airports dumpsters is also prohibited. Unloading Storage and Installation of Owner Furnished Contractor Installed Materials - under separate purchase order contracts, the Owner may purchase materials and equipment to be incorporated into the project. As required by the Contract Documents, the Contractor shall receive, unload, properly store, and protect all Owner-supplied materials and equipment in accordance with the manufacture's recommendation. In addition, he shall install Owner-supplied materials and equipment as specified elsewhere in the Contract Documents.

1.2 TEMPORARY UTILITIES:

- A. Electrical service: Electrical power service of existing voltage and amperage may be obtained from the designated metered service (this distribution equipment must be installed to provide for a temporary and permanent source of power for the project). Contractor shall be responsible for making connections to Airports service and for extensions of service. Contractor shall provide additional higher voltage power service and pay all costs for such power, including connections and extensions, if required by

him for construction purposes.

- B. Temporary lighting; provide the following minimum light levels for construction purposes:
 - 1. General construction and safety lighting: Five foot-candles.
 - 2. Finishing work and testing: 25 foot-candles.
- C. Temporary heat and ventilation:
 - 1. Provide temporary heat in enclosed spaces to provide minimum temperatures of 40 degrees F. until the time that finishing work begins.
 - 2. After building is enclosed and installation of finishes begins, maintain spaces in a temperature range of 60 degrees F. to 80 degrees F. at all times, except as may otherwise be required by product manufacturers for proper product installation and performance. Maintain until Date of Substantial Completion.
 - 3. Maintain relative humidity in a range of 50% to 65% in enclosed spaces after building is enclosed and installation of finishes begins, except as may otherwise be required by product manufacturers for proper product installation and performance. Maintain until Date of Substantial Completion.
 - 4. Provide ventilation to prevent accumulation of dust, fumes or gases and to cure materials and disperse humidity.
- D. Telephone service: Provide temporary telephone service to temporary offices for duration of project. Pay costs of installation and for local service.
- E. Water: Water for construction purposes may be obtained from Airports present facility. Contractor shall be responsible for extending lines from source and for making connections.
- F. Sanitary toilet facilities: Existing toilet facilities, within the project/scope of work boundaries, may be used by construction personnel.

1.3 TEMPORARY TRASH CHUTE:

- A. Temporary Trash Chute and Dumpster: No trash chute will be utilized on the project.

1.4 USE OF ELEVATORS:

- 1. Only elevators assigned specifically for construction use can be utilized. Under no circumstances will passenger elevators be used to transport materials or equipment.
- 2. If elevators are to be utilized by the contractor for his sole use, then the contractor shall have the following responsibilities for the elevator -
 - a) elevator shall be inspected by the Contractor and GHS-FD together to determine existing condition,
 - b) elevator shall be returned to the Hospital in the same existing condition as noted in the inspection above,
 - c) contractor shall have the responsibility for maintaining the elevator during the time the elevator is in his possession and shall pay for the elevator maintenance contract during that period,
 - d) contractor shall seal off openings on floors that the elevator temporarily will not access,
 - e) contractor shall install signage, acceptable to the owner, on floor that the elevator will not access indicating the temporary outage.

1.5 SECURITY, VENDOR BADGES.

- A. Grady Health System Facilities Development (GHS-FD) requires that all construction personnel and outside vendors working within their facilities obtain security clearance and be issued a Vendor Badge from the GHS-FD Office prior to beginning work. These badges must be worn at all times while within a Grady Health System (GHS) facility. Non-display of the badge will be cause for removal from the Work Site and upon three or more instances removal from the project. Badges are to be returned once no longer needed. Badges not returned will carry a \$10 fee to the prime contractor in question.

1.6 HOT WORK PERMITS:

- A. A "Hot Work Permit" must be obtained from GHS-FD for all cutting and welding and must be displayed at the site of the "hot work."

1.7 BUILDING ACCESS AND USE:

- A. The Contractor shall generally be prohibited from entering areas of the building except where work is in progress. Access to roofs through the building shall be coordinated with the GHS-FD. Work and access shall cause as little disruption to building occupants as possible. The Contractor shall give a minimum of two days advance notice and receive permission from the GHS-FD for building access.
- B. Schedule the Work and arrange material storage in a manner which leaves the project site as unencumbered as possible. Provide temporary barriers and enclosures, and maintain the site in clean condition.
- C. The Contractor shall be responsible for correcting damages to the building caused by his work or passage. Soiled or damaged materials shall be replaced or repaired to satisfaction of the Owner.
- D. The Hospital will continue operations of existing facilities during the progress of the work. The Contractor must maintain continuous service of all utilities at all times. The Contractor will not work in occupied areas. If it should become necessary for the Contractor to temporarily disrupt the Hospitals operations or have access to occupied areas, the Contractor shall request such in the Shutdown Meeting prior to beginning the work. A written/graphic submittal is required.
- E. Demolition activities, jackhammering, hammerdrilling, Hilti gun (on ceilings or columns) and any other construction activity of substantial noise level will be permitted only during normal working hours.
- F. All system shutdowns will be coordinated through the GHS-FD utility shut down procedure.
- G. Conform at all times to GHS-FD's requirements for protection of plant, materials, equipment and employees.
- H. Use designated routes of access through existing facilities and keep such routes clean and free of obstruction at all times.
- I. There shall be no burning on the site. All materials not to be incorporated into the Work shall be immediately removed from the site and properly and legally disposed of. No materials shall be buried on the site.

1.8 SHUTDOWNS & TIE-INS

The Owner will occupy the existing building during the life of this Contract. The Contractor shall endeavor to minimize interference and inconvenience to the Hospital. THE CONTRACTOR MUST INSURE THE CONTINUOUS OPERATION OF THE HOSPITAL AT ALL TIMES DURING THE PROJECT AND SHALL TAKE NO ACTION TO ENDANGER THE PATIENTS, STAFF VISITORS OR ANY OTHER OCCUPANT OF THE BUILDING. The Contractor must obtain the approval of GHS-FD Before starting any work within the existing building.

- A. The Contractor shall survey, identify, plan and get written approval from the GHS-FD's Project Manager prior to executing required mechanical and electrical system shutdowns for program specified modifications, repairs, or replacements with the understanding that continuity of safe, effective patient care is of paramount importance. Many anticipated shutdowns must therefore be scheduled outside of the normally required work hours. Planned shutdowns are subject to last minute cancellation if operating conditions so dictate.
- B. Mechanical and electrical systems critical to the operation of Grady Memorial Hospital include but are not limited to:
 - 1. Fire Alarm System
 - 2. Sprinkler System
 - 3. Standpipe System
 - 4. Electrical Distribution System
 - 5. Emergency Power System
 - 6. Vertical Transportation
 - 7. Plumbing Systems (including DWV)
 - 8. Steam System
 - 9. Condensate System
 - 10. Boiler System
 - 11. HVAC System
 - 12. Incinerator/Heat Recovery System
 - 13. Energy Management System
 - 14. Communication Systems (See Note 1)
 - 15. Data Management System (See Note 1)
 - 16. Security System (See Note 1)
 - 17. Process Systems (See Note 1, 2)

Note 1) Involves other Hospital departments

Note 2) Include all service delivery departments.

- C. All on-line mechanical and electrical system valves and controls will be operated by GHS-FD personnel. Contractors will, under NO circumstances, be authorized to interface in any way with the operation of any on-line system.
- D. Shutdowns are to be planned, coordinated and scheduled one week prior to shutdown, with the GHS-FD Project Manager.
- E. The General Contractor and Mechanical/Electrical subcontractors share the responsibility to minimize both the number and duration of shutdowns to critical hospital systems. Every attempt shall be made to coordinate, and to the extent possible, consolidate shutdown requests from subcontractors involved in all phases of the project.
- E. Shutdowns will be planned and scheduled in writing by the General Contractor with the

GHS-FD Project Manager following a Shutdown meeting. This meeting will be called by GHS-FD upon request by the appropriate contractor or subcontractor that a shutdown is required. This meeting shall be attended by the following personnel (or their designated representative):

1. Design Engineer (M/E as appropriate)
2. GHS-FD Facilities Development Project Manager
4. Contractor/Subcontractor requesting Shutdown

The following topics will be addressed at this meeting by the appropriate participant:

1. Purpose of shutdown, referencing construction drawings
2. Duration of shutdown anticipated
3. Verification that materials/resources required to minimize shutdown duration are at hand or will be at site at date and time of shutdown
4. Impact of evolution on schedule
5. Impact of evolution on hospital operations
6. Safety considerations required by subcontractor/hospital
7. Back up service requirements, responsibilities, design.
8. Special considerations (i.e., drain down times, impact of weather, asbestos insulation removal, etc.
9. Shutdown time/date

- G. Except in emergencies, the Shutdown Meeting must be called at least one week in advance of the requested shutdown date. GHS-FD will not support or provide for unplanned or poorly planned shutdowns.

1.9 SPECIAL PROTECTION REQUIREMENTS:

- A. Protect buildings and building components from damage, staining or defacing due to the Work. Correct or replace damaged materials or finishes to satisfaction of the Owner.
- B. Building entrances and exits shall not be made inaccessible unless approved in advance by GHS-FD and local fire officials.
- C. Provide protection against overspray of cleaning materials or paint contacting building occupants or vehicles in drives or parking areas. Drives shall not be blocked to extent of restricting vehicular access, and parking area restrictions shall be kept to a minimum. Barriers and restrictions shall be approved in advance by the Owner. Do not work with materials subject to being wind blown during times of high winds.
- D. Protect surfaces of fresh coating products from damage or discoloration due to rain, dust or physical damage. Replace damaged or defaced materials which cannot be restored to satisfaction of the Owner.
- E. Protect building from rain or water leakage during the course of the Work. Do not open roof areas to extent that openings cannot be protected from inclement weather. Openings shall not be left unprotected overnight.
- F. Provide plywood walkway boards at roof and penthouse perimeters, and from roof access points, to protect roof from damages during the Work. Damages to roof, related damages to roof accessories and flashing, and resultant damages to building interior materials and finishes due to roof leaks shall be corrected by Contractor to satisfaction of and at no additional cost to the Owner.

- G. Contractor shall take precautions to prevent migration of noxious, irritating or hazardous fumes and gases into the Hospital. When sealants, adhesives, compounds, cleaners, lubricants, paints, etc. are to be applied, provide adequate exhaust to the exterior of the building away from the airport air intake. Provide fresh air ventilation as required to work safely in confined areas.
- H. Operations which require the use of machines which produce excessive noise such as rotary hammers, jackhammers, and engines on construction equipment and which will be located within 200 feet of critical patient areas shall be coordinated with the Owner prior to operation. Machines which produce vibrations shall be coordinated with the Owner to minimize disruptions to critical operations and tests.
- I. The Contractor shall comply with NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations.

1.10 PERSONNEL RESTRICTIONS:

- A. Sexual Harassment, defined in its broadest and most inclusive form, immoral, lewd, indecent, disruptive or disorderly behavior or conduct is not allowed. The Owner reserves the right to direct the Contractor to immediately eject any person violating this requirement from the Hospital property.
- B. While on Hospital property, construction personnel shall wear pants, shirts, shoes, and required safety equipment at all times. Open shirts and shorts are not allowed. The Owner reserves the right to direct the Contractor to immediately eject any person violating this requirement from the Hospital property.
- C. Contractor and subcontractor employees shall not be permitted to smoke on the Work Site or inside any Airport building. In the event of two or more instances of an individual violating the no smoking policy, the company responsible for that individual will be asked to remove the person from the work site permanently.
- D. Contractor personnel are not allowed to utilize toilet facilities in use by the hospital..
- E. Contractor personnel activities must be contained within the boundaries of the project/scope of work. Interaction with on-going Hospital operations and personnel or distribution through the Hospital is strictly forbidden.
- F. Do not pound, drill or use explosive fasteners except during designated time period for such activities.

END OF SECTION 01500

01501 - INTERIM LIFE SAFETY MEASURES & INFECTION CONTROL POLICY

PART 1 - GENERAL

1.1 INTERIM LIFE SAFETY MEASURES (ILSM)

- A. (ILSM) are a series of administrative and operational actions required to be taken to temporarily compensate for the hazards posed by existing Life Safety Code (LSC) deficiencies or construction activities.
- B. Implementation of ILSM is required in or adjacent to all construction areas and throughout buildings with existing LSC deficiencies. ILSM apply to all personnel, including construction workers. Implementation of ILSM must begin upon project development, and be continuously enforced through project completion.
- C. Contractor shall implement and comply with all the specific ILSM's established for the Project. See Project Manual Volume 4.

1.2 Infection Control Policy (ICRA)

- A. The Infection Control Policy establishes processes to prevent the dust and debris generated during construction and renovation projects from contaminating clean or sterile patient care surfaces, supplies or equipment. The measures are implemented to ensure patients, visitors and staff are protected from unnecessary exposure to potentially infectious agents and acquisition of nosocomial infections.
- B. Contractor shall implement and comply with the specific Infection Control Measures established for the Project. See Project Manual Volume 4.

PART 2 - NOT USED

PART 3 - NOT USED

END OF SECTION 01501

01561 - CLEANING

PART 1 GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Execute cleaning, during progress of the Work, and at completion of the Work.
- B. If the Contractor fails to clean up during construction or at the completion of the Work, the Owner may do so and the cost thereof shall be charged to the Contractor.

1.2 RELATED REQUIREMENTS

- A. Section 00800, SPECIAL CONDITIONS.
- B. Each Specification Section: Cleaning for specific products or Work.

1.3 DISPOSAL REQUIREMENTS

- A. Conduct cleaning and disposal operations to comply with codes, ordinances, regulations, and anti-pollution laws.

1.4 ALLOWANCES

- A. The Contractor shall enter into a subcontract with a professional building cleaning company, which will provide the final cleaning operation at the Project.

PART 2 PRODUCTS

PART 3 EXECUTIONS

3.1 DURING CONSTRUCTION

- A. Execute daily cleaning to keep the Work, the site and adjacent properties free from accumulations of waste materials, rubbish and windblown debris, resulting from construction operations. Worksite shall be broom swept at the completion of each workday.
- B. Provide on-site containers for the collection of waste materials, debris, and rubbish.
- C. Remove waste materials, debris, and rubbish from the site periodically and dispose of at legal disposal areas away from the site.

3.2 DUST CONTROL

- A. Clean interior spaces prior to the start of finish painting and continue cleaning on an as-needed basis until painting is finished.
- B. Schedule operations so dust and other contaminants resulting from cleaning process will not fall on wet or newly-coated surfaces.

3.3 FINAL CLEANING

- A. Employ skilled workmen for final cleaning.
- B. Remove grease, mastic, adhesives, dust, dirt, stains, fingerprints, labels, and other foreign materials from sight-exposed interior and exterior surfaces.
- C. Wash and shine glazing and mirrors.
- D. Polish glossy surfaces to a clear shine.
- E. Vacuum clean interior of buildings, including HVAC ducts.
- F. Hand dust, clean and polish shelving and cabinets.
- G. Wax and polish finish floors.

- H. Clean all hardware.
- I. Clean all fixtures.
- J. Comply with all special cleaning instructions contained in the Specifications.
- K. Ventilating Systems:
 - 1. Clean permanent filters and replace disposable filters if units were operated during construction.
 - 2. Clean ducts, blowers and coils if units were operated without filters during construction.
- L. Broom clean exterior paved surfaces: rake clean other surfaces on the grounds.
- M. Prior to final completion, or Owner occupancy, Contractor shall conduct an inspection of sight-exposed interior and exterior surfaces, and all Work areas, to verify that the entire Work is clean.

END OF SECTION 01561

SECTION 01600

MATERIAL AND EQUIPMENT

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. General product requirements, including:
 - a. General specification requirements for all products.
 - b. Product options.
 - c. Procedures for substitution requests.
2. General requirements for product documentation, including:

-262144. General requirements for warranties.

3. General procedures for products including:

- a. Procedures for transportation and handling.
- b. Procedures for delivery and receiving.
- c. Procedures for storage.

1.2 DEFINITIONS

- A. Damage: Any sort of deterioration whether due to weather, normal wear and tear, accident, or abuse, resulting in soiling, marring, breakage, corrosion, rotting, or impairment of function.

1.3 SUBMITTALS

- A. Warranties: Submit for project record.

PART 2 - PRODUCTS

2.1 GENERAL

- A. Components required to be supplied in quantity within a specification section shall be identical, interchangeable, and made by the same manufacturer.

PART 3 - EXECUTION

3.1 PRODUCT OPTIONS

- A. It is contractor=s responsibility to select products which comply with the contract documents and which are compatible with one another, with existing work, and with products selected by other contractors.
 1. Verify that electrical characteristics of products are compatible with electrical systems; notify architect of all discrepancies.
 2. Where visual matching to an established physical sample is required, the architect=s decision will be final.

- B. Do not use any substitute products which have-not been approved in accordance with the requirements of the contract documents; formal substitution request is required.
- C. Definition of Substitute Product: Any product which does not meet the requirements of the contract documents, whether in product characteristics, performance, quality, or manufacturer or brand names, is considered a substitute.
- D. Product Options: Where products are specified using more than one method, such as description with a manufacturer list, use a product meeting the requirements of both specification methods.
- E. Products Specified by Reference Standard: Use any product meeting the specification. Provisions of reference standards shall not modify the responsibilities of the owner or architect as defined in the contract documents.
- F. Products Specified by Description: Use any product meeting the specification.
- G. Products Specified by Performance Requirements: Use any product meeting the specification.
- H. Products Specified to Match a Physical Sample: Use any product that matches; obtain the architect=s approval.
- I. Products Specified by Listing a Brand Name Product as the Basis of Design: Provide a product equivalent to the product specified within the limits of variation specified; submit substitution request for all products other than that listed as basis of design.
- J. Products Specified by Listing Brand Name(s): Provide a product at least equal to the brand name product, or products, listed; submit substitution request for any brand name product not listed.
- K. Products Specified by Listing Manufacturer(s): Provide a product meeting the specification; submit substitution request for any manufacturer not listed.

3.2 SUBSTITUTIONS AFTER AWARD OF THE CONTRACT

- A. Substitutions will only be considered if the specified product is no longer being manufactured or if the specified product cannot be delivered to the project in a timely manner. Failure of the contractor to order products in a timely manner is not a basis for substitution.
- B. The contractor will be notified in writing within a reasonable time; verbal acceptance will not be valid.
- C. Acceptable substitutions will be added to the contract documents by appropriate modification.

3.3 SUBSTITUTION PROCEDURES

- A. Submission of request for substitution shall constitute a representation by the contractor that he:
 - 1. Has investigated the proposed product and determined that it is equal to or better than the specified product. Absence of an explicit comparison of any characteristic of the proposed product to the specified product shall constitute a representation that the proposed product is equal to or better than the specified product with regard to that characteristic.
 - 2. Will provide the same warranty for the proposed product as for the specified product.

3. Will coordinate the installation and make other changes which may be required for the work to be complete in all respects, including:
 - a. Redesign.
 - b. Additional components and capacity required by other work affected by the change.
4. Waives all claims for additional costs and time extensions which subsequently may become apparent and which are caused by the change.
- B. Substitutions will not be considered when acceptance would require substantial revision of the contract documents.
- C. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals without separate written request.
- D. Substitution requests will not be considered when submitted directly by subcontractor or supplier.
- E. Substitution Request Procedure: Submit written request with complete data substantiating compliance of the proposed product with the requirements of the contract documents.
 1. Submit request to the architect.
 2. Submit 2 copies of each request and accompanying data.
 3. Submit request accompanied by the transmittal form included in the project manual.
- F. Data Required with Substitution Request: Provide at least the following data:
 1. Identify product by specification section and paragraph number.
 2. Manufacturer's name and address, trade name and model number of product (if applicable), and name of fabricator or supplier (if applicable).
 3. Complete product data.
 4. Description of changes that will be required in other work or products if the substitute product is approved.
- G. The architect will determine acceptability of the proposed substitution.

- H. When the proposed substitution is not accepted, provide the product (or one of the products, as the case may be) specified.

3.4 WARRANTIES

- A. Provide warranties as specified individual product sections.
- B. Manufacturer Warranties: manufacturer=s standard product warranty running for the manufacturer=s standard term, unless otherwise indicated.
 - 1. Submit copies of all manufacturer warranties which extend beyond the end of the contract correction period.
- C. Special Project Warranties: Written warranty commencing at date of substantial completion, running for the term indicated, and signed by the entities specified.
 - 1. Where completion of warranty item in materially delayed beyond the date of substantial completion, provide warranty commencing on date of acceptance.
 - 2. Submit each special project warranty.
- D. Provide two (2) notarized copies of each executed warranty.
- E. Show actual date of commencement on each warranty.

3.5 TRANSPORTATION AND HANDLING

- A. Require supplier to package finished products in a manner which will protect from damage during shipping, handling, and storage.
- B. Transport products by methods which avoid damage.
- C. Deliver in dry, undamaged condition in manufacturer=s unopened packaging.
- D. Provide equipment and personnel adequate to handle products by methods which prevent damage.
- E. Provide additional protection during handling where necessary to prevent damage to products and packaging.
- F. Lift large and heavy components at designated lift points only.

3.6 DELIVERY AND RECEIVING

- A. Arrange deliveries of products to allow time for inspection prior to installation.
- B. Coordinate delivery to avoid conflict with the work and to take into account both the conditions at the site and the availability of personnel, handling equipment, and storage space.
- C. Clearly mark partial deliveries to identify contents, to permit easy accumulation of entire delivery, and to facilitate assembly.
 - A. Promptly inspect shipments and remedy damage, incorrect quantity, incompleteness, improper or illegible labeling, and noncompliance with requirements of contract documents and approved submittals.

3.7 STORAGE

A. No indoor storage areas are available on site.

B. General Storage Procedures:

1. Store products immediately on delivery.
2. Store products in accordance with manufacturer=s instructions, with seals and labels intact and legible.
3. Store in a manner to prevent damage to the stored products and to the work.
4. Store moisture-sensitive products in watertight enclosures. Special precautions are to be taken to assure that no moisture is in stored roofing components.

5. Store indoors if necessary to keep temperature and humidity within ranges required by manufacturer.
6. Store unpacked and loose products on shelves, in bins, or in neat groups of like items.
7. Arrange storage to provide access for inspection and inventory.
8. Periodically inspect and remedy damage and noncompliance with required conditions.

C. Loose Granular Materials: Store on solid surfaces in well-drained area; prevent mixing with foreign materials.

D. Exterior Storage:

1. Cover products subject to weather damage with impervious sheet covering; provide ventilation to avoid condensation.
2. Provide surface drainage to prevent runoff or ponded water from damaging stored products.
3. Prevent damage and contamination from refuse and chemically injurious materials and liquids.
4. Store fabricated products on substantial platforms, blocking, or skids above the ground, sloped to drain.

END OF SECTION

01700 - CONSTRUCTION PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Cutting procedures.
 - 2. Existing hazardous material procedures.
 - 3. Project completion procedures.
 - 4. Final property survey.
 - 5. Final extermination.

1.2 DEFINITIONS

- A. Cutting: Removal of material by cutting, sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation.
- B. Damage: Any sort of deterioration whether due to weather, normal wear and tear, accident, or abuse, resulting in soiling, marring, breakage, corrosion, rotting, or impairment of function.

1.3 SUBMITTALS

- A. Certificate of Final Extermination.

1.4 QUALITY ASSURANCE

- A. Qualifications of Surveyor: Registered land surveyor licensed in the State in which the Project is located.

1.5 PROJECT CONDITIONS

- A. Take precautions to prevent fires and to facilitate fire-fighting operations.
 - 1. Keep temporary and permanent fire fighting facilities readily accessible; keep fire fighting routes open.
 - 2. Do not allow smoking in areas where highly combustible or explosive materials are present.
 - 3. Conduct welding operations in manner to prevent fire; comply with local regulations.
- B. Take precautions to prevent accidents due to physical hazards:
 - 1. Provide barricades, warning lights, or signs as required to inform personnel and the public of the hazard being protected against.
 - 2. Safety barricades: Comply with regulations.
 - 3. Provide temporary walkways where walking surfaces are hazardous.
 - 4. Notify the Owner before beginning work that involves hazardous operations, including use of explosives and the like.
- C. Protect existing property indicated to remain, including:
 - 1. Existing property, as indicated on the drawings.
- D. Do not use tools or equipment which produce harmful levels of noise.
 - 1. Minimize the use of noise-making tools and equipment during hours that adjacent

buildings are occupied.

- E. Keep the site and adjacent public ways free of hazardous and unsanitary conditions and public nuisances.
- F. Control rodents and other pests; prevent infestation of adjacent sites and buildings due to pests on this site.
- G. Keep public streets free of debris due to this work.
- H. Provide adequate traffic control by means of signs, signals, and flagmen, as necessary.
- I. Conduct construction operations so that no part of the work and no part of the existing construction is subjected to damaging operations or influences which are in excess of those to be expected during normal occupancy conditions.
- J. Conduct construction operations so that waste of power, water, and fuel is avoided.
- K. Provide temporary supports as required to prevent movement and structural failure.
- L. Install products only during environmental conditions which will ensure the best possible results.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 GENERAL EXAMINATION REQUIREMENTS

- A. Prior to performing work, examine the applicable substrates and the conditions under which the work is to be performed.
- B. If unsafe or otherwise unsatisfactory conditions are encountered, take corrective action before proceeding.
- C. Conditions which could have been discovered by examination will not be allowed as cause for claims for extra work.
- D. Notify the Architect promptly of any modifications required due to existing conditions or previous work.
- E. Before starting work which might affect existing construction, verify the existence and location of such construction.
 - 1. The existence and location of construction indicated as existing on the drawings are not guaranteed.
 - 2. In particular, verify the following:
 - a. Underground utilities.
 - b. Other underground construction.
 - c. Location and invert elevation of points of connection to piped utilities.
 - d. Existing plumbing and mechanical shafts to remain.
 - e. Existing telephone and data wiring to remain.
- F. Verify that utility requirements of operating equipment are compatible with building utilities.

- G. Verify space requirements of items which are shown diagrammatically on the drawings.

3.2 GENERAL PREPARATION REQUIREMENTS

- A. Take field measurements as required to fit the work properly.
- B. Recheck measurements prior to installing each product.

3.3 CUTTING AND PATCHING PROCEDURES

- A. Use specified cutting and patching procedures when cutting or patching is required for any of the following activities:
 1. Fitting the parts of the work together.
 2. Modifying existing construction.
 3. Repairing existing work to remain.
 4. Installing ill-timed work.
 5. Removing and replacing defective and nonconforming work.
 6. Removing samples of work for testing.
 7. Making openings in elements of work for penetrations, such as for piping, conduit, duct, and the like.
 8. Uncovering work for observation.
 9. Repairing damage.
- B. Perform cutting and patching at earliest time feasible, unless otherwise indicated or directed by the Architect.
 1. Where required, obtain approval of procedures by the Architect.
 2. Cut using methods that are least likely to damage adjacent work and work to remain and which will provide proper surfaces for patching.
 3. Make cuts neatly with minimum disturbance of adjacent work.
 - a. Use appropriate tools intended for sawing or grinding and not for chopping or hammering.
 - b. Do not use pneumatic tools without prior approval.
 4. Use the original installer of the work to perform cutting and patching of the following:
 - a. Any products so indicated in the applicable product section.
- C. Work Exposed to View: Do not cut or patch in a manner that would result in a lessening of the building's aesthetic value, as determined by the Architect.
 1. Generally, cut from exposed side into concealed spaces to avoid unnecessary damage to finish.
 2. Do not cut and patch in a manner that would result in substantial visual evidence of cut and patch work.
- D. Existing Construction:
 1. Where specified procedures for similar new work are applicable, use those procedures for cutting and patching existing construction.
 2. Take precautions to avoid damage to unanticipated utilities and structural elements. If such elements are encountered, report nature and extent to the Architect and request instructions as to how to proceed.
- E. Concrete and Masonry: Use saws or drills which produce a neat cut; remove in small sections.
- F. Slabs on Grade: Use methods that will not crack or disturb adjacent slabs or partitions.

- G. Protect that part of the project which is exposed during cutting and patching operations from adverse weather.
- H. Cover openings made whenever they are not in use.

3.4 EXISTING HAZARDOUS MATERIAL PROCEDURES

- A. It is possible that asbestos will be found in the existing building.
 - 1. Do not cut any material that is suspected of being asbestos.
 - 2. If material to be cut is suspected of being asbestos, immediately stop work on it and notify the Owner and the Architect.
 - 3. Determination of hazard will be made by others at no cost to the Contractor.
 - 4. Removal of asbestos will be accomplished by others at no cost to the Contractor.
- B. Perform final cleaning prior to requesting inspection for substantial completion.
 - 1. Use only professional cleaners.
 - 2. Clean to the level of cleanliness that would be expected by a commercial building owner from a janitorial service.
- C. Clean entire project site and grounds.
 - 1. Broom clean paved areas.
 - 2. Rake smooth all exposed earth surfaces.
- D. In spaces to be occupied, remove dirt, stains, and other foreign substances from all accessible surfaces and remove nonpermanent labels.

3.5 PROJECT COMPLETION PROCEDURES

- A. Complete the work, prior to substantial completion, as required to obtain consent to occupancy from the governing authorities.
- B. Arrange for final inspections by governing authorities to be accomplished prior to substantial completion.

END OF SECTION 01700

SECTION 01720 - PROJECT RECORD DOCUMENTS
PART 1 GENERAL

REQUIREMENTS INCLUDED

- A. Maintain at the site for the Owner one record copy of:
 - 1. Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change orders and other modifications to the Contract.
 - 5. Field orders or written instructions.
 - 6. Approved shop drawings, product data and samples.
 - 7. Field Test Records.
 - 8. Construction Photographs.

1.2 RELATED REQUIREMENTS

- A. GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION - paragraph 3.11.1.
- B. Section 01340, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES.
- C. Section 01400, QUALITY CONTROL SERVICES
- D. Close-Out Procedure (attached)

1.3 MAINTENANCE OF DOCUMENTS AND SAMPLES

- A. Store documents and samples in Contractor's field office apart from documents used for construction.
 - 1. Provide files and racks for storage of documents.
 - 2. Provide locked cabinet or secure storage space for storage of samples.
- B. Maintain documents in a clean, dry, legible condition and in good order. Do not use record documents for construction purposes.
- C. Make documents and samples available at all times for inspection by the Engineer or Owner.

1.4 MARKING DEVICES

- A. Provide felt tip-marking pens for recording information in the color code designated by the Engineer.

1.5 RECORDING

- A. Label each document PROJECT RECORD in neat large printed letters.
- B. Record information concurrently with construction progress.
 - 1. Do not conceal any Work until required information is recorded.
- C. Drawings; legibly mark to record actual construction:
 - 1. Depths of various elements of foundation in relation to finish first floor datum.
 - 2. Horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - 3. Location of internal utilities and appurtenances concealed in the construction, referenced to visible and accessible features of the structure.
 - 4. Field changes of dimension and detail.
 - 5. Changes made in the field or by Change Order.
 - 6. Details not on original Contract Drawings.
- D. Specifications and Addenda; legibly mark each Section to record:
 - 1. Manufacturer, trade name, catalog number, and supplier of each product and item of equipment actually installed.
 - 2. Changes made in the field or by Change Order.

1.6 SUBMITTAL

- A. At Contract close-out, deliver record documents to the Engineer for the Owner.
- B. Accompany submittal with transmittal letter in duplicate, containing:

1. Date
2. Project title and number
3. Contractor's name and address
4. Title and number of each record document.
5. Signature of Contractor or his authorized representative

- C. The Contractor shall certify by letter that to the best of his knowledge, the record copy of all documents which he delivers to the Owner, are accurate and represent actual field conditions at completion of construction with any or all modifications shown and described thereon.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

SECTION 01740 - WARRANTIES AND BONDS

PART 1 GENERAL

REQUIREMENTS INCLUDED

- A. Compile specified warranties and bonds.
- B. Compile specified service and maintenance contracts.
- C. Contractor shall co-execute all warranties and bonds.
- D. Review submittals to verify compliance with Contract Documents.
- E. Submit to Architect for review and transmittal to Owner.

1.2 RELATED REQUIREMENTS

- A. GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION.
- B. Section 00800, SUPPLEMENTARY CONDITIONS.
- C. Each respective section of Specifications as listed hereafter: Warranties and Bonds Required for Specific Products.

1.3 SUBMITTAL REQUIREMENTS

- A. Assemble warranties, bonds and service and maintenance contracts, executed by each of the respective manufacturers, suppliers, and subcontractors.
- B. Number of original signed copies required: Two each.
- C. Table of Contents: Neatly typed, in orderly sequence. Provide complete information for each item.
 - 1. Product or work item.
 - 2. Firm, with name of principal, address and telephone number. (This is the name of the manufacturer/subcontractor representative responsible for warranty and bond items.)
 - 3. Scope.
 - 4. Date of beginning of warranty, bond or service and maintenance contract.
 - 5. Duration of warranty, bond or service maintenance contract.
 - 6. Provide information for Owner's personnel:
 - a. Proper procedure in case of failure.
 - b. Instances, which might affect the validity of warranty or bond.
 - 7. Contractor, name of responsible principal, address and telephone number. (This is the name of the Contractor's representative who is to be called by the Owner regarding all warranty and bond items.)

1.4 FORM OF SUBMITTALS

- A. Prepare in duplicate packets.
- B. Format:
 - 1. Size 8-1/2 x 11 inch, punch sheets for standard three-ring binder.
 - a. Fold larger sheets to fit into binders.
 - 2. Cover: Identify each packet with typed or printed title "WARRANTIES AND BONDS." List:
 - a. Title of Project.
 - b. Name of Contractor.
- C. Binders: Commercial quality, three-ring, with durable and cleanable plastic covers.

1.5 TIME OF SUBMITTALS

- A. Make submittals within ten days after Date of Substantial Completion, prior to final request for payment.

- 1.6 For items of Work, where acceptance is delayed materially beyond Date of Substantial Completion, provide updated submittal within ten days after acceptance, listing date of acceptance as start of warranty period.

1.7 SUBMITTALS REQUIRED

- A. Submit warranties, bonds, service and maintenance contracts as specified in respective sections of Specifications:

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION