DIVISION 1 - GENERAL REQUIREMENTS

SECTION 01010 SUMMARY OF WORK and SPECIAL REQUIREMENTS

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included
- The "Project", entitled <u>DCSS Project No. 421-116, Vanderlyn Elementary School HVAC,</u> <u>Ceiling and Lighting Replacement, Roof Replacement and ADA Modifications</u> is composed of the complete design and construction as per the Contract Documents, for the <u>HVAC, Ceiling</u> <u>and Lighting Replacement, Roof Replacement and ADA Modifications.</u>

The Project is located at <u>1877 Vanderlyn Drive; Dunwoody, Georgia 30338</u>.

- B. Commencement, Possession, Scheduling and Completion of Work
 - 1. The Owner's primary purpose is to educate students. The Project is necessary to meet the Owner's obligations. In scheduling its Work and in preparing the construction progress schedule, the Design/Builder shall consult with the Owner and shall attempt to accommodate the needs of the Owner without unduly disrupting the Design/Builder's performance of the Work.
 - 2. At all times, the Design/Builder shall take all reasonable and legal precautions to provide for the safety of the students and the public. The Design/Builder shall be responsible for damage to property and persons which result from its Work inside and outside construction limits. The Design/Builder shall promptly correct conditions it has caused which create a health, safety or property danger.
 - 3. Before commencing Work, the Owner's Representative, the Design/Builder and all interested Subcontractors shall inspect the entire existing building or buildings (if there is an existing building or buildings) and Design/Builder shall prepare a list of any and all defects or inoperative systems. The list shall be signed by all parties and retained by the Owner. At the time of commencement of Work, the existing building or buildings shall be assumed to be in structurally sound condition, free from cracks and leaks and that all electrical, heating and air conditioning and plumbing systems are operational, except as noted on said list. Upon completion of the Work, all then existing defects not recorded upon said list shall be repaired, replaced or made operative by the Design/Builder at its own risk and expense.
- C. Special Requirements
 - 1. As school shall remain in normal session during the progress of this Work except during summer vacancy, the Design/Builder must follow special requirements so as to minimize disruption to school activities, which may include without limitation extracurricular and other activities after normal school hours.
 - 2. No jackhammer work shall be done during normal school hours.
 - On days that school is in session, Design/Builder shall not block (or use) areas used for bus loading during the following hours: 8:00 a.m. to 8:30 a.m.

3:00 p.m. to 4:00 p.m.

- 4. Design/Builder shall schedule as much Work activity as is reasonable during days and hours that school activities are not taking place. Work shall be scheduled to avoid as much as possible interference with the normal operation of the buildings. The Design/Builder shall give written notice and request for consent to the Owner at least thirty (30) days in advance of the date on which Design/Builder wishes to interrupt power, phones, gas, water or other service, which notice shall specify the proposed date and duration of such interruption and the service(s) to be interrupted. Design/ Builder shall not interrupt power, phone, gas, water or other service without the Owner's prior written consent, which consent shall not be unreasonably withheld. The duration of each separate interruption of power, phones, gas, water or other service shall not exceed fortyeight (48) hours. To the extent that is reasonable and subject to the use requirements of the Owner, such interruptions shall be scheduled between Friday after the hour of four o'clock (4:00) p.m. and Monday before the hour of eight o'clock (8:00) a.m. and interruptions of electrical service within buildings exceeding one hour shall be scheduled only between four o'clock (4:00) p.m. Friday and eight o'clock (8:00) a.m. Monday. The Design/Builder may otherwise interrupt power, phone, gas, water or other service at any time that the Design/Builder shall have written permission from the Owner to do so. Notwithstanding any prior consent of the Owner to an interruption, in the event of an emergency affecting the safety of property, health or life, the Owner may revoke prior consent and restrict interruptions. In no event shall the Design/Builder be entitled to an increase in the Contract Price or any other additional compensation in respect of the Owner's refusal to consent, or revocation of consent, to interrupt power, phone, gas, water or other service. Design/Builder further agrees that Design/Builder shall not be entitled to any increase in the Contract Time or any other extension of time in respect of the Owner's reasonable refusal to consent, or revocation of consent, to such interruption. Any claim for an increase in the Contract Time in respect of the Owner's unreasonable refusal to consent, or revocation of consent, to such interruption shall be subject to and governed by the Contract Documents. Weekend work, Saturday or Sunday, requires a permit from the DeKalb County Public Department of Public Works and the Design/Builder is responsible for obtaining this permit.
- 5. Certain existing systems may be under warranty or critical to the Owner's operation, or both, and, unless otherwise agreed in writing by the Owner, shall be repaired only by the warrantor or the Owner at the Design/Builder's expense if damaged by the Design/Builder or anyone for whom the Design/Builder is responsible. The Design/Builder shall protect all piping, wiring, equipment and related devices from damage during progress of the Work and ensure uninterrupted operation unless outages are specifically coordinated with, and consented to in writing by, the Owner. These systems include, without limitation:
 - a. All utility services to existing facilities including, water, electricity, telephone, sewer, media cable data or video.
 - b. Security System
 - c. Fire Alarm System
 - d. Intercom System
 - e. Energy Monitoring and Control System
 - f. TV / Cable Distribution
 - g. Computer Network System
- 6. The Design/Builder shall at all times during the performance of the Work adhere to the existing facility evacuation plan as approved by the DeKalb County Fire Marshall.
- 7. The Design/Builder shall at all times during the performance of the Work for the purpose of public safety maintain complete separation between existing facilities and construction activities. At a minimum, separation of exterior work activities will be achieved with the use of six foot (6') high chain-link fencing and interior separations shall be achieved with full height floor to ceiling wall barriers of wood or drywall construction. Where the safety of pedestrians or drivers is endangered in the area of Work, including without limitation

removal Work, the Design/Builder shall use barricades and other necessary precautions at no additional expense to the Owner.

- 8. Construction and staging are limited to the areas within the "Limits of Fenced Construction Area" to be indicated on the plans as designated by the Owner. The Design/Builder must park all vehicles inside designated construction area. If necessary, the Design/Builder will be responsible for transporting its employees and others engaged in the performance of the Work to and from the job site from off site staging areas provided and paid for by the Design/Builder at no additional expense to the Owner.
- 9. The Design/Builder shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Contract. The Design/Builder shall adhere to the safety regulations imposed by the U.S. Department of Labor, OSHA (Occupation Safety & Health Act), by the State Commissioner of Labor, and any other applicable laws. The Design/Builder shall have the right to exclude from the site any personnel who undertakes to enter without a hard hat or who violates any of these imposed safety regulations.
- 10. Hazardous Materials: Design/Builder shall be responsible for determining the presence of any hazardous materials. All hazardous materials shall be handled in accordance with all applicable laws. If the Design/Builder encounters asbestos in the performance of the Work, Design/Builder shall stop the affected Work (and only the affected Work) and notify Owner. Owner may, at its option, elect to remove or otherwise render safe such asbestos with Owner's own forces or contractors, whereupon the Design/Builder shall resume the affected Work after direction from the Owner's Representative that such work of the Owner's own forces or contractors is complete. Alternatively, the Owner may, at its option, order that the Design/Builder remove or otherwise render safe such asbestos, in which case any claim of Design/Builder therefor shall be subject to the requirements of the Contract. If the Work requires the removal of light ballasts, the Design/Builder shall remove and separate the ballasts from the lights into two groups. The first group is all ballasts that clearly state that they contain NO PCB. Such ballasts shall be disposed of by the Design/Builder as waste. The second group consists of all ballasts that are marked CONTAINS PCB. Such ballasts shall be packed by the Design/Builder in such containers and in such manner as required by the Owner and applicable laws, and the Design/Builder shall prepare a manifest for each group of such ballasts for shipment. There is no limit to the number of containers to be packed by the Design/Builder for shipment. The Owner has the right, but not the obligation, to inspect containers on a random basis to determine the quality of the ballast sort. At the time directed by the Owner, the Design/Builder shall be responsible for loading the packed containers onto transportation provided by the Owner and the Owner shall be responsible for causing the packed and loaded containers to be transported to a hazardous material dumping site.
- 11. Certain fees: Contractors doing work for the DeKalb County School District are exempted from DeKalb County building permit fees, assessment fees, and impact fees. For the avoidance of doubt, certain costs that are the responsibility of the Design/Builder and shall be included in the costs of the Work include, without limitation:
 - a. Water Flow Test to be completed prior to start of construction.
 - b. DeKalb County Water Department water meter and water vault requirements and any required water tap fees.
 - c. Design/Builder shall contact and coordinate with the appropriate utility departments all aspects of the Work affecting existing utilities, including without limitation payment of any required fees by the Design/Builder.
- 12. Without limiting any other obligation of the Design/Builder under the Contract, any questions, clarifications or suggestions by the Design/Builder shall be discussed at the preconstruction conference.

- 13. Without limitation of any obligations or duties of the Design/Builder under the Contract, the Design/Builder specifically agrees that mechanics, electricians, and maintenance personnel of the Owner may enter onto the site during the progress of the Work for the purpose of maintaining existing facilities, and for the purpose of taking emergency measures necessary to preserve life or property.
- 14. For the avoidance of doubt, as used in this Division 1 General Requirements, the term "Agreement" means that certain Standard Form of Contract For Fixed Price Design and Construction Services Between the DeKalb County Board of Education and the Design/Builder. Capitalized terms in this Division 1 that are not defined herein, but that are defined in the Agreement, shall have the meaning ascribed to them in the Agreement.
- 15. For the avoidance of doubt, all approvals of the Owner shall be subject to Article 13 Paragraph G of the Agreement.

SECTION 01027 APPLICATIONS FOR PAYMENT FOR THE WORK

PART 1 - GENERAL

1.1 DESCRIPTION

A. Work included: Comply with procedures described in this Section when applying for progress payment and final payment for the Work under the Contract.

1.2 QUALITY ASSURANCE

- A. Prepare, present and secure the Owner's approval of the required schedule of values in accordance with Article 11, Paragraph D, of the Agreement.
- B. During progress of the Work, modify the schedule of values as approved by the Owner to reflect changes in the Contract Price due to Change Orders or other modifications of the Contract.
- C. Base requests for payment on the approved schedule of values.

1.3 SUBMITTALS

- A. Informal submittal: Unless otherwise directed by the Owner:
 - 1. Make an informal submittal of request for payment by filling in, with erasable pencil, pertinent portions of a form of application for payment that is in form and content satisfactory to the Owner, including any continuation sheet or sheets as necessary.
 - 2. Make this preliminary submittal to the Owner at the last regular job meeting of each month.
 - 3. Revise the informal submittal of request for payment as agreed at the job meeting, initialing all copies.
- B. Formal submittal: Unless otherwise directed by the Owner:
 - 1. Make formal submittal of request for payment by filling in the agreed data, by typewriter or neat lettering in ink, on a form of application for payment that is in form and content satisfactory to the Owner, including any continuation sheet or sheets as necessary, in triplicate.
 - 2. Sign and notarize, in triplicate, the formal Application and Certificate for Payment.
 - 3. Submit, in triplicate, the original of the formal Application and Certificate for Payment, plus continuation sheet or sheets, to the Owner.
 - 4. Submit 3 copies of a set of 8"x10"Aerial color photographs of three (3) different views of the entire Project site.
 - a. Identify each print on the back with:
 - 1. Project name.
 - 2. Owner's name.
 - 3. Design/Builder's name.
 - 4. Photographer's name and address
 - 5. Photograph date.

- 6. Position and direction from which photo was taken.
- 5. Submit 3 copies of a set of ten (10) 4"x6" color photographs of different views of the Project. These need **not** be taken by a professional commercial photographer.
 - a. Identify each print on the back with:
 - 1. Project name.
 - 2. Owner's name.
 - 3. Design/Builder's name.
 - 4. Photographer's name and address.
 - 5. Photograph date.
 - 6. Position and direction from which photo was taken.
- 6. Submit two (2) copies of updated approved construction schedule as required under Section 01310, Paragraph 1.3-D
- 7. At approximately 80% completion of each category of Work, but prior to billing for 80% of the Work to be done for such category, submit an interim punch list of Work to be done for that category. Such interim punch list shall be, in respect of the Owner, informational only and shall not in any way bind the Owner with respect to the Work required by the Contract Documents.

SECTION 01045 CUTTING AND PATCHING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. The Contract Documents including, without limitation, other Specification Sections apply to Work of this Section.

1.2 DESCRIPTION

- A. Work included: This Section establishes general requirements pertaining to cutting (including excavating), fitting and patching of the Work required to:
 - 1. Make the several parts fit properly;
 - Cutting into existing construction to provide for the installation or performance of other Work and subsequent fitting and patching required to restore surfaces to their original conditions;
 - 3. Uncover Work to provide for installing, inspecting, or both, of ill-timed Work;
 - 4. Remove and replace Work not conforming to requirements of the Contract Documents;
 - 5. Remove and replace defective Work;
 - Refer to other Sections, including but not limited to Division 15 (Mechanical) and Division 16 (Electrical) for cutting and patching requirements and limitations applicable to specific portions of the Work.
- B. Related Work:
 - 1. In addition to other requirements specified, upon the Owner's request, uncover Work to provide for inspection by the Owner of covered Work and remove samples of installed materials for testing.

1.3 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the Work of this Section.
- B. Inspection: Before any Work commences, the Owner's Representative and Design/Builder shall inspect the existing building site conditions and determine the precise limit of any demolition Work and the Design/Builder shall be held responsible for any additional damage to the existing conditions and shall repair or replace damaged items at its own expense.
- C. Requirements for Structural Work: Do not cut or patch structural Work in a manner that would result in a reduction of load carrying capacity or of load deflection ratio.
- D. Operational and Safety Limitations: Do not cut or patch operational elements or safety related components in a manner that would result in a reduction of their capacity to perform in the manner intended.
- E. In the event that, during progress of any demolition Work, the Design/Builder finds that portions of the existing building shown to be removed cannot, in fact, be removed without damaging portions shown to remain, notify the Owner and apply for instructions. In the

absence of notification, the Design/Builder shall repair any damaged portion of the existing building which is shown to remain at the Design/Builder's expense as subsequently instructed by the Owner.

F. In removing any portions of the existing building, the Design/Builder shall adequately brace or shore the structures while demolition Work is in progress to prevent damage to portions of the structures that are to remain. Material to be removed which is attached directly to the structure to remain shall be carefully removed. Repair all damage caused to the remaining structure resulting from the demolition operations. Wherever new Work abuts existing structures to remain, patch existing structures to provide uniformity of appearance.

1.4 SUBMITTALS

- A. Request for Owner's consent:
 - 1. Prior to cutting which effects structural safety, submit written request to the Owner for permission to proceed with cutting.
 - 2. Should conditions of the Work, or schedule, indicate a required change of materials or methods for cutting and patching, so notify the Owner and secure written permission and any required Change Order prior to proceeding.
- B. Notices to the Owner
 - 1. Prior to cutting and patching performed pursuant to the Owner's instructions, submit written cost estimate to the Owner. Secure the Owner's written approval of cost estimates and type of reimbursement and any required Change Order before proceeding with cutting and patching.
 - 2. Submit written notice to the Owner designating the time the Work will be uncovered, to provide for the Owner's observation.

1.5 DEMOLITION

All materials indicated to be removed shall be disposed of off the Owner's property. The use of explosives will not be permitted. The amount of dust resulting from the operations shall be controlled to prevent the spread of dust to avoid creating a nuisance in the surrounding area. The procedure proposed for the accomplishment of demolition Work shall be submitted to the Owner for approval, subject to Article 13 Paragraph G of the Agreement. The procedure shall provide for safe conduct of the Work, careful removal and disposition of materials, protection of property which is to remain undisturbed and coordination with other Work in progress. The procedures shall include a detailed description of the methods and equipment to be used for each operation, and the sequence of operations.

PART 2 - PRODUCTS

2.1 MATERIALS

A. General: Except as otherwise indicated, or as directed by the Owner, use materials for cutting and patching that are identical to existing materials.

SECTION 01050 FIELD ENGINEERING

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: Provide such field engineering services as are required for proper completion of the Work including, but not necessarily limited to:
 - 1. Establishing and maintaining lines and levels;
 - 2. Structural design of shores, forms and similar items provided by the Design/Builder as part of its means and methods of construction.
- B. Related Work:
 - 1. Documents affecting Work of this Section include, without limitation, other Sections in Division 1 of these Specifications;
 - 2. Additional requirements for field engineering also may be described in other Sections of these Specifications;
 - 3. If required, the Design/Builder will furnish survey describing the physical characteristics, legal limitations, utility locations, and legal description of the site.

1.2 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the Work of this Section.

1.3 SUBMITTALS

- A. Comply with pertinent provisions of Section 01340.
- B. Upon request of the Owner, submit:
 - 1. Data demonstrating qualifications of persons proposed to be engaged for field engineering services;
 - 2. Documentation verifying accuracy of field engineering Work;
 - 3. Certification, signed by the Design/Builder's retained field engineer, certifying that elevations and locations of improvements are in conformance or nonconformance with requirements of the Contract Documents.

1.4 **PROCEDURES**

- A. In addition to procedures directed by the Design/Builder for proper performance of the Design/Builder's responsibilities:
 - 1. Locate and protect control points before starting Work on the site;
 - 2. Preserve permanent reference points during progress of the Work;
 - 3. Do not change or relocate reference points or items of the Work without specific written approval from the Owner.

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4. Promptly advise the Owner when a reference point is lost or destroyed, or requires relocation because of other changes in the Work. Upon direction of the Owner, require the field engineer to replace reference stakes or markers. Locate such replacements according to the original survey control.

SECTION 01200 PROJECT MEETINGS

PART 1 - GENERAL

1.1 DESCRIPTION

A. Work included: To enable orderly review during progress of the Work, and to provide systematic discussion of problems, the Design/Builder will conduct project meetings throughout the construction period.

1.2 QUALITY ASSURANCE

A. For those persons designated by the Design/Builder to attend and participate in project meetings, provide required authority to commit the Design/Builder to solutions agreed upon in the project meetings.

1.3 SUBMITTALS

- A. Agenda Items: To the maximum extent practicable, advise the Owner at least twenty-four (24) hours in advance of project meetings regarding items to be added to the agenda.
- B. Minutes:
 - 1. The Owner's Representative will compile minutes of each project meeting and will provide a copy of the minutes to the Design/Builder. The Design/Builder will distribute a copy to all meeting attendees and others involved in the project.
 - 2. Recipients of copies may make and distribute such other copies as they wish.

PART 2 - PRODUCTS

(No products are required in this Section)

PART 3 - EXECUTION

3.1 MEETING SCHEDULE

- A. Except as noted below for Preconstruction Meeting, Project meetings will be held not less than every other week and shall be held weekly or more frequently if requested by the Owner.
- B. Coordinate as necessary to establish mutually acceptable schedule for meetings.

3.2 MEETING LOCATION

A. The Design/Builder, subject to approval of the Owner, will establish meeting location. To the maximum extent practical, meetings will be held at the job site.

3.3 PRECONSTRUCTION MEETING

- A. Preconstruction Meeting will be scheduled to be held not later than five (5) days (excluding Saturday and Sunday) after the Owner has issued the notice to commence the Work.
 - 1. Provide attendance by authorized representatives of the Design/Builder and major Subcontractors.

- 2. The Design/Builder shall, and the Owner may, advise other interested parties and invite their attendance.
- B. Minimum agenda: Data will be distributed and discussed on at least the following items.
 - 1. Organizational arrangement of Design/Builder's forces and personnel, and those of Subcontractors and material suppliers;
 - 2. Channels and procedures for communications;
 - 3. Construction schedule, including sequence of critical Work;
 - 4. Contract Documents, including distribution of required copies of original documents and revisions;
 - 5. Processing of shop drawings and other data submitted to the Owner for review;
 - 6. Rules and regulations governing performance of Work;
 - 7. Procedures for safety and first aid, security, quality control, housekeeping and related matters.

3.4 **PROJECT MEETINGS**

- A. Attendance:
 - 1. To the maximum extent practicable, assign the same person or persons to represent the Design/Builder at project meetings throughout progress of the Work.
 - 2. Subcontractors, material suppliers, and others may be invited to attend those project meetings in which their aspect of the Work is involved. The Owner may advise other interested parties and invite their attendance.
- B. Minimum Agenda:
 - 1. Review, revise as necessary and approve minutes of previous meetings;
 - 2. Review progress of the Work since last meeting, including status of submittals for approval;
 - 3. Identify problems that impede planned progress;
 - 4. Develop corrective measures and procedures to regain planned schedule;
 - 5. Complete other current business.
- C. Revisions to minutes:
 - 1. Unless published minutes are challenged in writing prior to the next regularly scheduled progress meeting, they will be accepted as properly stating the activities and decisions of the meeting.
 - 2. Persons challenging published minutes shall reproduce and distribute copies of the challenge to all indicated recipients of the particular set of minutes.

3. Challenge to minutes shall be settled as priority portion of "old business" at the next regularly scheduled meeting.

SECTION 01310 PROGRESS SCHEDULES AND DAILY REPORTS

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: To assure adequate planning and execution of the Work so that the Work is completed within the number of calendar days allowed in the Contract, and to assist the Owner in appraising the reasonableness of the proposed schedule and in evaluating progress of the Work, prepare and maintain the schedules and daily reports described in this Section and elsewhere in the Contract.
- B. Related work:
- C. Definitions:
 - 1. "Day", as used throughout the Contract, unless otherwise stated, means "calendar day".

1.2 PROGRESS SCHEDULE QUALITY ASSURANCE

- A. Perform data preparation, analysis, charting, and updating in accordance with standards approved by the Owner's Representative.
- B. Reliance upon the approved schedule:
 - 1. The construction schedule as approved by the Owner's Representative will establish interim completion dates for the various activities under the Contract.
 - 2. Should any activity not be completed within fifteen (15) days after the stated scheduled date, the Owner shall have the right to require the Design/Builder to expedite completion of the activity by whatever means the Owner deems appropriate and necessary, without additional compensation to the Design/Builder.
 - 3. Should any activity be thirty (30) days or more behind schedule, the Owner shall have the right, but not the duty, to perform the activity or have the activity performed by whatever method the Owner deems appropriate.
 - 4. Costs incurred by the Owner in connection with expediting construction activity under this Article shall be reimbursed by the Design/Builder.
 - 5. It is expressly understood and agreed that failure by the Owner to exercise the option either to order the Design/Builder to expedite an activity or to expedite the activity by other means shall not be considered a waiver by Owner and shall not be considered to set a precedent for any other activities.

1.3 PROGRESS SCHEDULE SUBMITTALS

- A. Comply with pertinent provisions of Section 01340.
- B. Preliminary analysis: Within ten (10) calendar days after the Design/Builder has received the Owner's notice to commence the Work, submit two (2) prints of a preliminary construction schedule prepared in accordance with Part 3 of this Section.

- C. Construction schedule: Within fifteen (15) calendar days of commencing the Work, submit two (2) prints of a construction schedule prepared in accordance with Part 3 of this Section.
- D. Periodic reports: On the first day of each month (provided, however, that if the first day of a month is a Saturday or a Sunday, then on the first Monday of such month) following the submittal described in Paragraph 1.3-C above, submit two (2) prints of the construction schedule updates as described in Part 3 of this Section.

PART 2 - PROGRESS SCHEDULE PRODUCTS

2.1 CONSTRUCTION ANALYSIS

- A. Graphically indicate the order and interdependence of all activities necessary to complete the Work, and the sequence in which each activity is to be accomplished, as planned by the Design/Builder and his project field superintendent in coordination with all Subcontractors whose Work is shown on the diagram.
- B. Include, without limitation, the following activities:
 - 1. Project mobilization;
 - 2. Submittal and approval of shop drawings and samples;
 - 3. All major elements and subdivisions of the Work;
 - 4. Procurement of equipment and critical materials;
 - 5. Fabrication of special material and equipment, and its installation and testing.
 - 6. Substantial Completion;
 - 7. Final cleanup;
 - 8. Final inspecting and testing;
 - 9. Final Completion; and
 - 10. All activities required of the Owner that affect progress, required dates for completion, or both, for all and each part of the Work.
- C. No single activity, other than submittal activities, shall have a calendar day duration greater than 14 days.

PART 3 - PROGRESS SCHEDULE EXECUTION

3.1 FORMAT

A. The construction schedule shall utilize the Critical Path Method of scheduling with activity time scale graphics. Computer data print-outs may supplement the graphic print-out. If requested by the Owner, the Design/Builder will provide the Owner with an electronic file format of the initial project schedule and all subsequent updates and revisions.

3.2 PROGRESS SCHEDULE PRELIMINARY ANALYSIS

- A. Contents:
 - Show all activities of the Design/Builder under this Work for the period between receipt of notice to commence the Work and submittal of construction schedule required under Paragraph 1.3-C above;
 - 2. Show the Design/Builder's general approach to remainder of the Work;
 - 3. Show cost of all activities scheduled for performance before submittal and approval of the construction schedule.
- B. Submit in accordance with Paragraph 1.3-B above.

3.3 PROGRESS SCHEDULE CONSTRUCTION SCHEDULE

- A. As soon as practicable after receipt of notice to commence the Work, complete the construction analysis in preliminary form, meet with the Owner, review contents of the proposed construction schedule, and make all revisions agreed upon.
- B. Submit in accordance with Paragraph 1.3-C above.

3.4 PROGRESS SCHEDULE PERIOD REPORTS

- A. As required under Paragraph 1.3-D above, update the approved construction schedule.
 - 1. Indicate "actual" progress in percent completion for each activity;
 - 2. Provide written narrative summary of revisions causing delay in the program and an explanation of corrective actions taken or proposed.

3.5 PROGRESS SCHEDULE REVISIONS

A. Make only those revisions to approved construction schedule as are approved in advance by the Owner.

PART 4 - DAILY REPORTS

4.1 DAILY REPORT PREPARATION AND SUBMITTAL

A. As soon as Work has commenced, the Design/Builder shall prepare written daily reports of the Work performed the previous day by its employees and Subcontractors. The report shall be prepared by the Design/Builder's Superintendent and shall bear his signature. Submission of the daily reports shall be not less than weekly to the Owner's Representative. Submittal of the daily reports shall not constitute written notice to the Owner as required by other sections of the Contract Documents.

4.2 DAILY REPORT CONTENT

- A. Each report shall contain the following minimum information:
 - (a) weather conditions and temperature, including any adverse effects of the same on the progress of the Work;
 - (b) a detailed description of any injuries or safety problems, including any adverse effect of same on the progress of the Work;
 - (c) the Design/Builder's efforts pursuant to its Quality Control Program;
 - (d) the number and trades of all workers on site for which the Design/Builder is responsible including a breakdown for each Subcontractor;
 - (e) all major equipment on the site whether in use or idle and its general location;
 - (f) a general description of the Work being performed by the Design/Builder and Subcontractors, the location of Work being performed and the quantity of the Work;
 - (g) a statement by the Design/Builder as to whether or not the Work is progressing as scheduled and if not, the reasons why the Work is not progressing on schedule;
 - (h) all visitors to the site; and
 - (i) all deliveries made to the site.

SECTION 01340 SUBMITTALS

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: Make submittal required by the Contract Documents, and revise and resubmit as necessary to establish compliance with the specified requirements. Design/Builder shall submit a submittal schedule to the Owner's Representative within fourteen (14) days of receipt of notice to commence the Work. Submittals not required by the Owner will not be reviewed by the Owner.
- B. The Design/Builder may require its Subcontractors to provide drawings, setting diagrams and similar information to help coordinate the Work, but such data shall remain between the Design/Builder and its Subcontractors and will not be reviewed by the Owner, unless requested by the Owner. Nothing in the Contract Documents regarding submittals from the Design/Builder to the Owner shall be deemed or construed to mean that the Design/Builder should not require and review such submittals from its Subcontractors as may be necessary or prudent.
- C. The Design/Builder will provide to the Owner required submittals in sufficient detail for the Owner's Representative's review to determine compliance with the Owner's Criteria for design and construction of the Project. The Owner's or the Owner's Representative's review of these submittals shall be solely for the purpose of determining whether such submittals are generally consistent with the Owner's Criteria and does not relieve the Design/Builder of its duties for performance of its obligations under the Contract. At a minimum, but without limitation, the submittals for the following items will be provided to the Owner:
 - 1. Kitchen Equipment and Kitchen Exhaust Hoods
 - 2. Fire Alarm Systems
 - 3. Automatic Fire Sprinkler Systems
 - 4. ANSOL Fire Suppression Systems
 - 5. HVAC Equipment and Energy Management System
 - 6. Intercom Systems
 - 7. TV Distribution Systems
 - 8. Door Hardware

1.2 QUALITY ASSURANCE

- A. Coordination of submittal:
 - 1. Prior to each submittal, carefully review and coordinate all aspects of each item being submitted.
 - 2. Verify that each item and the submittal for it conforms in all respects with the specified requirements.
 - 3. By affixing the Design/Builder's signature to each submittal, certify that this coordination has been performed.
- B. "Or Equal":
 - 1. Where the phrase "or equal" or "or equal as approved by the Owner" occurs in the Contract Documents, do not assume that the materials, equipment or methods will be approved as equal unless the item has been specifically so approved for this Work by the Owner.

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2. The decision of the Owner shall be final.

1.3 SUBMITTAL

A. Make submittal of shop drawings, samples, substitution requests, and other items in accordance with the provisions of this Section.

PART 2 - PRODUCTS

2.1 SHOP DRAWINGS

- A. Scale and measurements: Make shop drawings accurately to the scale sufficiently large to show all pertinent aspects of the time and its method of connection to the Work.
- B. Types of prints required:
 - 1. For the Owner's Representative's review, submit shop drawings in the form of one (1) sepia transparency of each sheet plus five (1) blueline or blackline prints of each sheet.
 - 2. Blueprints will not be accepted.
- C. Review comments of the Owner will be shown on the sepia transparency when it is returned to the Design/Builder. The Design/Builder may make and distribute such copies as are required for its purposes.

2.2 MANUFACTURER'S LITERATURE

- A. Where contents of submitted literature from manufacturers include data not pertinent to the submittal, clearly show which portions of the contents are being submitted for review.
- B. Submit the number of copies which are required to be returned, plus one (1) copy which will be retained by the Owner.

2.3 SAMPLES

- A. Provide sample or samples identical to the precise article proposed to be provided. Identify as described under "Identification of Submittal" below.
- B. Number of Samples required:
 - 1. Unless otherwise specified, submit samples in the quantity which is required to be returned, plus one (1) which will be retained by the Owner.
 - 2. By prearrangement in specified cases, a single sample may be submitted for review and, when approved, be installed in the Work at a location agreed upon by the Owner.

2.4 COLORS AND PATTERNS

A. Unless the precise color and pattern is specifically called out in the Contract Documents, and whenever a choice of color or pattern is available in the specified products, submit accurate color and pattern charts to the Owner for selection.

PART 3 - EXECUTION

3.1 IDENTIFICATION OF SUBMITTAL

- A. Consecutively number all submittals.
 - 1. When material is resubmitted for any reason, transmit under a new letter of transmittal and with a new transmittal number.
 - 2. On resubmittals, cite the original submittal number for reference.
- B. Accompany each submittal with a letter of transmittal showing all information required for identification and checking.
- C. On at least the first page of each submittal, and elsewhere as required for positive identification, show the submittal number in which the item was included.
- D. Maintain an accurate submittal log for the duration of the Work, showing current status of all submittals at all times. Make the submittal log available to the Owner for their review upon request.

3.2 GROUPING OF SUBMITTAL

- A. Unless otherwise specified, make submittal in group containing all associated items to assure that information is available for checking each item when it is received.
 - 1. Make revisions required by the Owner.
 - 2. If the Design/Builder considers any required revision to be a change, it shall so notify the Owner as provided for in the Contract Documents.
 - 3. Make only those revisions directed or approved by the Owner.

3.3 OWNER'S RIGHT TO RECOVER CERTAIN COSTS

A. In the event that more than a reasonable amount of meetings with the Owner or the Owner's Representative are required in respect of the Design Services or the Work, or in the event that Design/Builder submits more than a reasonable amount of submittals to the Owner or the Owner's Representative (including without limitation submittals of proposed design documents, proposed substitutions, or proposed changes), then the Owner shall be entitled to recover from the Design/Builder an amount sufficient to cover the Owner's cost of attending such meetings or reviewing such submittals and the Owner shall be entitled to withhold such amount from any amounts otherwise due to Design/Builder.

SECTION 01370 SCHEDULE OF VALUES

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: Provide a detailed breakdown of the agreed Contract Price showing values allocated to each of the various parts of the Work, as specified herein and in other provisions of the Contract Documents.
- B. Related work:
 - 1. Schedule of Values shall be consistent with the "continuation sheet" accompanying applications for payment.

1.2 QUALITY ASSURANCE

- A. Use required means to assure arithmetical accuracy of the sums described.
- B. When so required by the Owner, provide copies of subcontracts or other data acceptable to the Owner, substantiating the sums described.

1.3 SUBMITTALS

- A. Within ten (10) calendar days after the first commencement of construction, submit a proposed Schedule of Values to the Owner.
 - 1. Meet with the Owner to determine additional data, if any, required to be submitted.
 - 2. Submit any additional data required.
 - 3. Secure the Owner's approval of the Schedule of Values.

SECTION 01410 TESTING LABORATORY SERVICES

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: Provide testing and inspecting, complete, described in this Section and elsewhere in the Contract Documents.
- B. Related work:
 - 1. Requirements for testing may be described in various Sections of the Specifications.

1.2 QUALITY ASSURANCE

- A. Design phase subsurface investigations and construction phase materials testing shall be performed by a testing laboratory selected by the Owner to provide these services. Other testing laboratory services shall be provided by a testing laboratory selected by the Design/Builder, subject to approval of the Owner, to provide those services.
- B. Upon completion of each test or inspection, the Design/Builder shall cause the testing laboratory to promptly distribute copies of test or inspection reports to the Design/Builder, Owner and governmental agencies requiring submission of such reports, and to such other persons as directed by the Owner.

PART 2 - PRODUCTS

2.1 PAYMENT FOR TESTING

A. The Design/Builder will pay for all testing services as indicated in Article 9 Paragraph N of the Agreement or as otherwise required by the Contract Documents, provided, however, that Owner shall pay for (and shall pay <u>only</u> for) the cost of Owner's Representative's approved design phase subsurface investigations and Owner's Representative's approved construction phase materials testing as set forth at Article 3 Paragraph D of the Agreement.

2.2 SPECIFIC TESTS AND INSPECTIONS

- A. Provide all tests and inspections required by governmental agencies having jurisdiction, required by provisions of the Contract Documents, and such other tests and inspections as are directed by the Owner.
- B. Governmental agency tests and inspections include, but are not necessarily limited to, weekly erosion control inspections required by the DeKalb County Public Department of Public Works and preparation of plans, notices, and water quality sampling required for the State Department of Natural Resources Storm Water Discharge Permitting.

PART 3 - EXECUTION

3.1 TAKING SPECIMENS

A. Except as may be specifically otherwise approved by the Owner, have the testing laboratory secure and handle all samples and specimens for testing.

3.2 COOPERATION WITH TESTING LABORATORY

A. Provide access to the Work at all times and at all locations where the Work is in progress. Provide facilities for such access to enable the laboratory to perform its functions properly.

SECTION 01500 TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: Provide temporary facilities and controls needed for the Work including, but not necessarily limited to:
 - 1. Temporary utilities such as heat, water, electricity and telephone;
 - 2. Field office for the Design/Builder's personnel;
 - 3. Sanitary facilities;
 - 4. Temporary barriers of the construction site;
 - 5. Project sign.
- B. Related Work:
 - 1. Except that equipment furnished by Subcontractors shall comply with requirements of pertinent safety regulations, such equipment normally furnished by the individual trades in execution of their own portions of the Work is not part of this Section.

1.2 PRODUCT HANDLING

A. Maintain temporary facilities and controls in proper and safe conditions throughout progress of the Work.

PART 2 - PRODUCTS

2.1 UTILITIES

- A. General: The Design/Builder shall provide water and electrical power utility service required by the Work.
- B. Water:
 - 1. Provide necessary temporary piping and water supply and, upon completion of the Work, remove such temporary facilities.
- C. Electricity:
 - 1. Provide necessary temporary wiring and, upon completion of the Work, remove such temporary facility.
 - 2. Provide area distribution boxes so located that the individual trades may furnish and use 100 ft. maximum length extension cords to obtain power and lighting at points where needed for Work, inspection and safety.

- D. Telephone:
 - 1. Make necessary arrangements and pay costs for installation and operation of telephone service to the Design/Builder's office at the site.
 - 2. Make the telephone available to the Owner for use in connection with the Work.

2.2 FIELD OFFICES AND SHEDS

- A. Design/Builder's facilities:
 - 1. Provide a field office building and sheds adequate in size and accommodation for Design/Builder's offices, supply and storage.
 - 2. Within the Design/Builder's facilities, provide enclosed space adequate for holding project meetings. Furnish with table, chairs and utilities.
- B. Sanitary facilities:
 - 1. Provide temporary sanitary facilities in the quality required for use by all personnel.
 - 2. Maintain in a sanitary condition at all times.

2.3 ENCLOSURES

A. Provide and maintain for the duration of construction all scaffolds, tarpaulins, canopies, warning signs, steps, platforms, bridges, and other temporary construction necessary for proper completion of the Work in compliance with pertinent safety and other regulations.

2.4 TEMPORARY BARRIERS

A. Provide and maintain for the duration of construction a temporary barrier as required, of design and type needed to prevent entry onto the Work by the public. Install and maintain thereon "Hazardous Area" signs sufficient to warn the public.

2.5 PROJECT SIGNS

- A. Prior to start of construction, submit proposed Project sign layout to the Owner for approval.
 - 1. Mount at job site where directed by Owner.
- B. Except as otherwise specifically approved by the Owner, do not permit other signs or advertising on the job site.

2.6 TRANSPORTATION FACILITIES

- A. Truck and equipment access:
 - 1. To avoid traffic conflict with vehicles of the Owner's employees, and to avoid overloading of streets and driveways elsewhere on the Owner's property, limit the access of trucks and equipment to the ACCESS ROUTE as directed by the Owner.
 - 2. Provide adequate protection for curbs and sidewalks over which trucks and equipment pass to reach the job site.

B. Remove such temporary facilities and controls as rapidly as progress of the Work will permit, or as directed by the Owner.

PART 3 - EXECUTION

3.1 SECURITY

A. Restrict the access of all persons entering upon the Owner's property in connection with the Work to the Access Route and to the actual site of the Work. The Design/Builder is responsible for providing adequate security to the building and its contents during the construction period. When school is in session and the Design/Builder is on the premises, the Owner and Design/Builder will be jointly responsible for security of the building. When the Design/Builder is on the premises after school hours and no owner's representative is on the premises, the Design/Builder will be fully responsible for security. Notwithstanding any provision in this paragraph that may be construed to the contrary, Design/Builder shall be fully responsible for any building, or part thereof, that is part of the Work and is not then occupied by Owner.

SECTION 01532 TREE PROTECTION

1.1 WORK INCLUDED

- A. Protection of trees indicated to remain is essential to the Project. Protection of existing trees and plants from damage, including tree root systems, as a result of the Design/Builder's operations shall include, but not be limited to:
 - 1. Protection of existing natural woodlands, including understory.
 - 2. Marking of clearing limits.
 - 3. Tree protection fencing.
 - 4. Tree preservation area signage.

1.2 RELATED REQUIREMENTS

A. Contract Documents shall include all necessary plans and information to show Design/Builder all areas which constitute the Tree Preservation area. It is the Design/Builder's responsibility to insure that these documents have been approved by all necessary approving officials.

SECTION 01640 PRODUCT HANDLING

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: Protect products scheduled for use in the Work by means including, without limitation, those described in this Section.
- B. Related Work:
 - 1. Additional procedures also may be prescribed in other Sections of these Specifications.

1.2 QUALITY ASSURANCE

A. Include within the Design/Builder's quality assurance program such procedures as are required to assure full protection of Work and materials.

1.3 MANUFACTURERS' RECOMMENDATIONS

A. Except as otherwise approved by the Owner, determine and comply with manufacturers' recommendations in product handling, storage and protection.

1.4 PACKAGING

- A. Deliver products to the job site in their manufacturer's original container, with labels intact and legible.
 - 1. Maintain packaged materials with seals unbroken and labels intact until time of use.
 - 2. Promptly remove damaged material and unsuitable items from the job site, and promptly replace with material meeting the specified requirements, at no additional cost to the Owner. The Owner may reject as non-complying such material and products that do not bear identification satisfactory to the Owner as to manufacturer, grade, quality and other pertinent information.

1.5 **PROTECTION**

- A. Protect finished surfaces, including jamb and soffitts of openings used as passageways, through which equipment and materials are handled.
- B. Provide protection for finished floor surfaces in traffic areas prior to allowing equipment or materials to be moved over such surfaces.
- C. Maintain finished surfaces clean, unmarred and suitably protected until accepted by the Owner.

1.6 REPAIRS AND REPLACEMENTS

- A. In event of damage, promptly make replacements and repairs to the approval of the Owner and at no additional cost to the Owner.
- B. Additional time required to secure replacements and to make repairs shall not justify an extension to the Contract Time.

SECTION 01700 PROJECT CLOSEOUT

PART 1 - GENERAL

1.1 DESCRIPTION

A. Work included: Provide an orderly and efficient transfer of the completed Work to the Owner.

1.2 QUALITY ASSURANCE

A. Prior to requesting inspection by the Owner's Representative, use adequate means to assure that the Work is completed in accordance with the specified requirements and is ready for the requested inspection.

1.3 **PROCEDURES**

- A. Substantial Completion:
 - 1. Prepare and submit the list required by Article 12 Paragraph B of the Agreement.
 - 2. Within a reasonable time after receipt of the list, the Owner's Representative will inspect to determine status of completion.
 - 3. Should the Owner determine that the Work is not substantially complete:
 - a. The Owner's Representative promptly will so notify the Design/Builder, in writing, giving the reason therefor.
 - b. Design/Builder shall remedy the deficiencies and notify the Owners Representative when ready for reinspection.
 - c. The Owner's Representative will reinspect the Work.
 - 4. Reimbursement of Owner's additional costs:
 - a. In the event reinspection(s) are required by the Owner's Representative due to the failure of the Design/Builder to have achieved Substantial Completion as represented by the Design/Builder, the Owner's Representative will record all time used by Owner and Owner's Representative and any consultants in making required reinspections.
 - b. The Design/Builder shall promptly reimburse the Owner at the rate of two and one half times the direct cost for all time spent making the required reinspection(s).
 - 5. When the Owner concurs that the Work is substantially complete:
 - a. The Design/Builder will prepare a certificate of Substantial Completion in form and content satisfactory to the Owner, accompanied by the Design/Builder's list of items to be completed or corrected, subject to the Owner's approval of such list, which approval shall be subject to Article 13 Paragraph G of the Agreement.
 - b. The Design/Builder will submit the certificate of Substantial Completion to the Owner for the Owner's written acceptance of the responsibilities assigned to the Owner in the certificate. In addition to, and not in limitation of, the Design/Builder's other obligations under the Contract Documents, the Design/Builder's submission of the certificate of Substantial Completion to the Owner shall constitute the Design/Builder's specific acceptance of the responsibilities assigned to the Design/Builder in the certificate.

- B. Final Completion:
 - 1. Prepare and submit the notice required by Article 12 Paragraph E of the Agreement.
 - 2. Verify that the Work is complete including, but not necessarily limited to, all items mentioned in the Contract.
 - 3. Certify that:
 - a. Contract Documents have been reviewed;
 - b. Work has been inspected for compliance with the Contract Documents;
 - c. Work has been completed in accordance with the Contract Documents;
 - d. Equipment and systems have been tested, as required, and are operational;
 - e. Work is completed and ready for final inspection.
 - 4. The Owner's Representative will make an inspection to verify status of completion.
 - 5. Should the Owner determine that the Work is incomplete or defective:
 - a. The Owner's Representative promptly will so notify the Design/Builder, in writing, listing the incomplete or defective Work.
 - b. Design/Builder shall complete the Work, remedy the deficiencies promptly, and notify the Owner when ready for reinspection.
 - 6. Reimbursement of Owner's additional costs:
 - a. In the event reinspections are required by the Owner's Representative due to the failure of the Design/Builder to achieve final completion as represented, the Owner's Representative will record all time used by the Owner and by the Owner's Representative and any consultants in making required reinspections.
 - b. The Design/Builder shall promptly reimburse the Owner at the rate of two and one half times the direct cost for all time spent making the required reinspections.
 - 7. When the Owner determines that the Work is acceptable under the Contract Documents, it will request the Design/Builder to furnish closeout submittals.
- C. Closeout submittals include, without limitation:
 - 1. Project Record Documents described in Section 01720;
 - 2. Operation and maintenance data for items so listed in pertinent other Sections of these Specifications, and for other items when so directed by the Owner;
 - 3. Warranties and bonds;
 - 4. Keys and keying schedule;
 - 5. Spare parts and materials extra stock;

- 6. Evidence of compliance with requirements of governmental agencies having jurisdiction including, without limitation, the issuance of a Certificate of Occupancy by the DeKalb County Department of Public Works.
- 7. Certificates of Insurance for products and completed operations;
- 8. Evidence of payment and release of claims;
- 9. List of Subcontractors, service organizations, and principal vendors, including names, addresses and telephone numbers where they can be reached for emergency service at all times including nights, weekends and holidays.
- D. Final adjustment of accounts:
 - 1. Submit a final statement of accounting to the Owner's Representative, showing all adjustments to the Contract Price.
 - 2. If so required, the Owner's Representative will prepare a final Change Order showing adjustment to the Contract Price which was not made previously by Change Orders.

1.4 INSTRUCTION

A. Instruct the Owner's personnel in proper operation and maintenance of systems, equipment and similar items which were provided as part of the Work.

SECTION 01710 CLEANING-UP

PART 1 - GENERAL

1.1 DESCRIPTION

A. Work included: Throughout the construction period, maintain buildings and site in a standard of cleanliness as described in this Section.

B. Related work:

1. In addition to standards described in this Section, comply with requirements for cleaning as described in pertinent other Sections of these Specifications.

1.2 QUALITY ASSURANCE

- A. Conduct daily inspections, and more often if necessary, to verify that requirements for cleanliness are being met.
- B. In addition to the standards described in this Section, comply with pertinent requirements of governmental agencies having jurisdiction.

PART 2 - PRODUCTS

2.1 CLEANING MATERIALS AND EQUIPMENT

A. Provide required personnel, equipment and materials needed to maintain the specified standard of cleanliness.

2.2 COMPATIBILITY

A. Use only the cleaning materials and equipment which are compatible with the surface being cleaned, as recommended by the manufacturer of the material.

PART 3 - EXECUTION

3.1 PROGRESS CLEANING

- A. General:
 - 1. Retain stored items in an orderly arrangement allowing maximum access, not impeding traffic or drainage, and providing required protection of materials.
 - 2. Do not allow accumulation of scrap, debris, waste material and other items not required for construction of the Work.
 - 3. At least twice each month, and more often if necessary, completely remove all scrap, debris and waste material from the job site.
 - 4. Provide adequate storage for all items awaiting removal from the job site, observing requirements for fire protection of the ecology.

- B. Site:
 - 1. Daily, and more often if necessary, inspect the site and pick up all scrap, debris and waste material. Remove such items to the place designated for their storage.
 - 2. Weekly, and more often if necessary, inspect all arrangements of materials stored on the site. Restack, tidy or otherwise service arrangements to meet the requirements of subparagraph 3.1-A-1 above.
 - 3. Maintain the site in a neat and orderly condition at all times.
 - 4. The Design/Builder shall repair and clean roadway, sidewalk and property surfaces located outside construction limits (and inside construction limits if applicable) free of dirt and mud where caused by conveyance of construction or demolition materials, equipment and personnel to and from the construction site. Design/Builder shall provide the Owner for its review a written schedule, by which the Design/Builder shall perform corrective and clean-up work. Work shall be done at no additional expense to the Owner and in accordance with applicable laws, including without limitation, obtaining permits as necessary.
 - 5. Burning of trash, refuse or debris or other material on the site is not permitted.
- C. Structures:
 - 1. Weekly, and more often if necessary, inspect the structures and pick up all scrap, debris and waste material. Remove such items to the place designated for their storage.
 - 2. Weekly, and more often if necessary, sweep spaces clean.
 - a. "Clean", for the purpose of this subparagraph, shall be interpreted as meaning free from dust and other material capable of being removed by use of reasonable effort and hand-held broom.
 - 3. As required preparatory to installation of succeeding materials, clean the structures or pertinent portions thereof to the degree of cleanliness recommended by the manufacturer of the succeeding material, using equipment and materials required to achieve the necessary cleanliness.
 - 4. Following the installation of finish floor materials, clean the finish floor daily (and more often if necessary) at all times while work is being performed in the space in which finish materials are installed.
 - a. "Clean", for the purposes of this subparagraph, shall be interpreted as meaning free from foreign material which, in the opinion of the Owner, may be injurious to the finish floor material.

3.2 FINAL CLEANING

- A. "Clean", for the purpose of this Part 3.2, and except as may be specifically provided otherwise, shall be interpreted as meaning the level of cleanliness generally provided by skilled cleaners using commercial quality building maintenance equipment and materials.
- B. Prior to completion of the Work, remove from the job site all tools, surplus materials, equipment, scrap, debris and waste. Conduct final progress cleaning as described in Part 3.1 above.
- C. Site:

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- 1. Unless otherwise specifically directed by the Owner, broom clean paved areas on the site and public paved areas adjacent to the site.
- 2. Completely remove resultant debris.
- D. Structures:
 - 1. Exterior:
 - a. Visually inspect exterior surfaces and remove all traces of soil, waste materials, smudges and other foreign matter.
 - b. Remove all traces of splashed materials from accent surfaces.
 - c. If necessary to achieve a uniform degree of cleanliness, hose down the exterior of the structures.
 - d. In the event of stubborn stains not removable with water, the Owner may require light sandblasting or other cleaning at no additional cost to the Owner.
 - 2. Interior:
 - a. Visually inspect interior surfaces and remove all traces of soil, waste materials, smudges and other foreign matter.
 - b. Remove all traces of splashed material from adjacent surfaces.
 - c. Remove paint droppings, spots, stains and dirt from finished surfaces.
 - 3. Glass: Clean inside and outside.
 - 4. Polished surfaces: To surfaces requiring routine or buffed polish, apply the polish recommended by the manufacturer of the material being polished.
- E. Schedule final cleaning as approved by the Owner to enable the Owner to accept a completely clean Work.

3.3 CLEANING DURING OWNER'S OCCUPANCY

A. Should the Owner occupy the Work or any portion thereof prior to its completion by the Design/Builder and acceptance by the Owner, responsibilities for interim and final cleaning shall be as determined by the Owner in accordance with the Contract.

SECTION 01720 PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included:
 - 1. Throughout progress of Work, maintain Record Documents constituting an accurate record of changes in the Contract Documents, as described in Part 3.1 below.
 - 2. Upon completion of the Work, transfer the recorded changes to a set of final Record Documents, as described in Part 3.2 below.
- B. Related work:
 - 1. Other requirements affecting Project records may appear in pertinent other Sections of these Specifications.

1.2 QUALITY ASSURANCE

- A. Delegate the responsibility of maintenance of Record Documents to one person on the Design/Builder's staff as approved by the Owner.
- B. Accuracy of Records:
 - 1. Thoroughly coordinate changes within the Record Documents, making adequate and proper entries on each page of Specifications and each sheet of drawings and other documents where such entry is required to show the change properly.
 - 2. Accuracy of records shall be such that future searches for items shown in the Contract Documents may rely on information obtained from the approved Project Record Documents.
- C. Make entries within 24 hours after changes have occurred.

1.3 SUBMITTALS

- A. Comply with pertinent provisions of Section 01340.
- B. The Owner's approval of the current status of Project Record Documents may, at the sole option of the Owner, be a prerequisite to the Owner's approval of requests for progress payment and request for final payment under the Contract.
- C. Prior to submitting each request for progress payment, secure the Owner's approval, subject to Article 13 Paragraph G of the Agreement, of the current status of the Project Record Documents.
- D. Prior to submitting request for final payment, submit the final Project Record Documents to the Owner's Representative and secure its approval, subject to Article 13 Paragraph G of the Agreement.

1.4 PRODUCT HANDLING

- A. Maintain the job site and Record Documents completely protected from deterioration and from loss and damage until completion of the Work and transfer of all recorded data to the final Project Record Documents.
- B. In the event of loss of recorded data, use means necessary to again secure the data to the Owner's Representative's approval, which approval shall be subject to Article 13 Paragraph G of the Agreement.
 - 1. Such means shall include, if necessary in the opinion of the Owner, removal and replacement of concealing materials.
 - 2. In such case, provide replacements to the standards originally required by the Contract Documents.

PART 2 - PRODUCTS

2.1 RECORD DOCUMENTS

- A. Job Set: Promptly following receipt of the Owner's notice to commence the Work, provide and set aside, at no additional cost to the Owner, one complete set of all documents comprising the Contract.
- B. Final Record Documents: At a time nearing the completion of the Work, provide one complete set of sepia transparencies of all drawings in the Contract and electronic media in AutoCAD format, release 2000.

PART 3 - EXECUTION

3.1 MAINTENANCE OF JOB SET

- A. Immediately upon receipt of the Job Set described in Paragraph 2.1-A above, identify each of the documents with the title, "RECORD DOCUMENTS JOB SET".
- B. Preservation:
 - 1. Considering the Contract completion time, the probable number of occasions upon which the Job Set must be taken out for new entries and for examination, and conditions under which these activities will be performed, devise a suitable method for protecting the Job Set to the Owner.
 - 2. Do not use the Job Set for any purpose except entry of new data and for review by the Owner, until start of transfer of data to final Project Record Documents.
 - 3. Maintain the Job Set at the site of Work as the site is designated by the Owner.
- C. Making entries on drawings:
 - 1. Using an erasable colored pencil (not ink or indelible pencil), clearly describe the changes by graphic line and note as required.
 - 2. Date all entries.
 - 3. Call attention to the entry by a "cloud" drawn around the area or areas affected.
 - 4. In the event of overlapping changes, use different colors for the overlapping changes.

- D. Make entries in the pertinent other documents as approved, subject to Article 13 Paragraph G of the Agreement, by the Owner's Representative.
- E. Conversion of schematic layouts:
 - 1. In some cases on the drawings, arrangements of conduits, circuits, piping, ducts and similar items are shown schematically and are not intended to portray physical layout.
 - a. Final physical arrangement is determined by the Design/Builder, subject to the Owner's Representative's approval subject to Article 13 Paragraph G of the Agreement.
 - b. However, design of future modifications of the facilities may require accurate information as to the final physical layout of items which are shown only schematically on the drawings.
 - 2. Show on the Job Set of Record Drawings, by dimension accurate to within one (1) inch, the centerline of each run of items such as is described in subparagraph 3.1-E-1 above.
 - a. Clearly identify the item by accurate note such as "cast iron drain", "galv. water" and the like.
 - b. Show, by symbol or note, the vertical location of the item ("under slab", "in ceiling plenum", "exposed" and the like.)
 - c. Make all identification sufficiently descriptive that it may be related reliably to the Specifications.

3.2 FINAL PROJECT RECORD DOCUMENTS

- A. The purpose of the final Project Record Documents is to provide factual information regarding all aspects of the Work, both concealed and visible, and to enable future modification of the Work to proceed without lengthy and expensive site measurement, investigation and examination.
- B. Approval of recorded data prior to transfer:
 - 1. Following provision of the transparencies described in Paragraph 2.1-B above, and prior to start of transfer of recorded data thereto, secure the Owner's Representative's approval, subject to Article 13 Paragraph G of the Agreement, of all recorded data.
 - 2. Make required revisions.
- C. Transfer of data to drawing:
 - 1. Carefully transfer change data shown on the Job Set of record drawings to the corresponding transparencies, coordinating the changes as required.
 - 2. Clearly indicate at each affected detail and other drawings a full description of changes made during construction and the actual location of items described in subparagraph 3.1-E-1 above.
 - 3. Make all required revisions to final Project Record Documents and call attention to each entry by drawing a "cloud" around the area or areas affected.

SECTION 01730 OPERATIONS AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: To aid the continued instruction of operating and maintenance personnel, and to provide a positive source of information regarding the products incorporated into the Work, furnish and deliver the data described in this Section and in pertinent other Sections of these Specifications.
- B. Related work:
 - 1. Required Contents of submittals also may be amplified in pertinent other Sections of these Specifications.

1.2 QUALITY ASSURANCE

A. In preparing data required by this Section, use only personnel who are thoroughly trained and experienced in operation and maintenance of the described items, completely familiar with the requirements of this Section, and skilled in technical writing to the extent needed for communicating the essential data.

1.3 SUBMITTALS

- A. Comply with pertinent provisions of Section 01340.
- B. Submit preliminary drafts of the proposed Manuals to the Owner's Representative for review and comments, subject to Article 13 Paragraph G of the Agreement.
- C. Unless otherwise directed in other Sections, or in writing by the Owner, submit three (3) copies of the final Manual to the Owner prior to indoctrination of operation and maintenance personnel.

PART 2 - PRODUCTS

2.1 INSTRUCTION MANUALS

- A. Where Instruction Manuals are required to be submitted under other Sections of these Specifications, prepare in accordance with the provisions of this Section.
- B. Format:
 - 1. Size: 8-1/2 x 11".
 - 2. Paper: White bond, at least 20 lbs. weight.
 - 3. Text: Neatly typewritten or printed.
 - 4. Drawings: 11" in height preferable; bind in with text; foldout acceptable; larger drawings acceptable, but fold to fit within the Manual and provide a drawing pocket inside rear cover or bind in with text.

- 5. Flysheets: Separate each portion of the Manual with neatly prepared flysheets briefly describing contents of the ensuing portion; flysheets may be in color.
- 6. Binding: Use heavy-duty plastic or fiberboard covers with binding mechanism concealed inside the Manual; 3-ring binders will be acceptable; all binding is subject to the Owner's approval.
- 7. Measurements: Provide all measurements in U.S. standard units such as feet and inches, lbs. and cfm.
- C. Provide front and back covers for each Manual using durable material approved by the Owner and clearly identifiable on or through the cover with at least the following information:

OPERATING AND MAINTENANCE INSTRUCTIONS

Name and Address of Work Name of Design/Builder

General Subject of this Manual

Space for Approval Signature of the Design/Builder and Approval Date

- D. Contents: Include at least the following:
 - 1. Neatly typewritten index near the front of the Manual, giving immediate information as to location within the Manual of all emergency information regarding the installation.
 - 2. Complete instructions regarding operation and maintenance of all equipment involved including lubrication, disassembly and reassembly.
 - 3. Complete nomenclature of all parts of all equipment.
 - 4. Complete nomenclature and part number of all replaceable parts, name and address of nearest vendor and all other data pertinent to procurement procedures.
 - 5. Copy of all guarantees and warranties issued.
 - 6. Manufacturers' bulletins, cuts and descriptive data, where pertinent, clearly indicating the precise items included in this installation and deleting, or otherwise clearly indicating, all manufacturers' data with which this installation is not concerned.
 - 7. Such other data as required in pertinent Sections of these Specifications.

PART 3 - EXECUTION

3.1 INSTRUCTION MANUALS

- A. Preliminary:
 - 1. Prepare a preliminary draft of each proposed Manual.
 - 2. Show general arrangement, nature of contents in each portion, probable number of drawings and their size and proposed method of binding and covering.

- 3. Secure the Owner's Representative's approval, subject to Article 13 Paragraph G of the Agreement, prior to proceeding.
- B. Final: Complete the Manuals in strict accordance with the approved preliminary drafts and the Owner's Representative's review comments.
- C. Revisions:
 - 1. Following the indoctrination and instruction of operation and maintenance personnel, review all proposed revisions of the Manual with the Owner's Representative, effect all approved revisions and submit to Owner.

SECTION 01740 PROJECT MAINTENANCE

PART 1 - GENERAL

1.1 **PROJECT MAINTENANCE**

- A. Maintain and keep in good repair the improvements covered by the drawings and these Specifications during the life of the Contract.
- B. In the event of multiple failures of major consequences prior to the expiration of one year following final completion of the Project, the affected unit shall be disassembled, inspected and modified or replaced as necessary to prevent further occurrences. All related components which may have been damaged or rendered non-serviceable as a consequence of the failure shall be replaced. A new 12-month specific guaranty against defective or deficient design, workmanship and materials of such items shall commence on the day that the item is reassembled and placed back into operation. As used herein, multiple failures shall be interpreted to mean two or more successive failures of the same kind in the same item or failures of the same kind in two or more items. Major consequences may include, but are not limited to, cracked or broken piping or vessels, excessive wear or excessive leakage. Should multiple failures occur, all products of the same size and type shall be disassembled, inspected, modified or replaced, as necessary and re-guaranteed for one (1) year commencing on the day that the item is reassembled and placed back into operation. Nothing contained in this paragraph shall be construed to delete, diminish or lessen the separate duties of the Design/Builder set forth elsewhere in the Contract, it being understood that the provisions of this paragraph are in addition thereto.
- C. The Design/Builder shall, at its own expense, furnish all labor, materials, tools and equipment required and shall make such repairs and removals or shall perform such work or reconstruction as may be made necessary by any structural or functional defect or failure resulting from neglect, faulty workmanship or faulty materials, in any part of the Work performed by it. Such repair shall also include refilling of trenches, excavations or embankments which show settlement or erosion after backfilling or placement.
- D. Except as noted on the drawings or as specified, all structures such as embankments and fences shall be returned to their original condition prior to the completion of the Project. Any and all damage to any facility not designated for removal, resulting from the Design/Builder's operations, shall be promptly repaired by the Design/Builder at no cost to the Owner.
- E. The Design/Builder shall be responsible for all road and entrance reconstruction and repairs and maintenance of same, all in accordance with all applicable laws including without limitation obtaining permits if applicable, for a period of one (1) year from the date of final acceptance. In the event the repairs and maintenance are not made immediately and it becomes necessary for the Owner of the road to make such repairs, the Design/Builder shall reimburse the Owner of the road for the cost of such repairs.
- F. Notice to Design/Builder for repairs and reconstruction will be made in the form of a letter addressed to the Design/Builder at its home office sent, return receipt requested, via registered or certified mail.
- G. Nothing contained in this Section shall be deemed to negate, limit or modify other obligations and warranties, both general and specific, contained elsewhere in the Contract Documents, it being the intent of the parties that the provisions contained in this Section shall afford protection to the Owner in addition to that provided elsewhere in this Contract.

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