SPECIFICATIONS

MATOC

INDEFINITE DELIVERY INDEFINITE QUANTITY

(IDIQ)

For

MAXWELL AIR FORCE BASE, ALABAMA

12 February 2024

INDEX

1 GENERAL REQUIREMENTS

1.1 SUMMARY:

Work shall be defined in individual Task Orders (TO) and may consist of multiple disciplines in design and construction categories. It may involve design services for all aspects of general construction including construction, modifications, and renovations of existing facilities, roads, and utilities. Work may include but is not limited to construction, repair, alteration, demolition, of facilities, roads, and infrastructure. All divisions of MasterFormat may be used. The Contractor shall furnish all design, labor, equipment, material, manufactured articles, transportation, supervision, and all else necessary to accomplish the design and/or repair/construction of each TO written under this contract for all work that is defined for each project. Work may be accomplished at Maxwell/Gunter AFB, Lake Martin recreational site, or Vigilant Warrior training site. All future references to Maxwell shall be construed to include Maxwell. Gunter, Lake Martin, and Vigilant Warrior unless specifically stated otherwise. TOs will be completed as required per attached IDIQ specifications, referenced documents, and as identified on any TOs project drawings as applicable. The Contract will govern in the case of any conflicts with this section.

1.2 WORK RESTRICTIONS

A. Maxwell Air Force Base (AFB) work hours are 7:00 a.m. to 5:00 p.m. all days of the week except Saturday, Sunday, and Federal Holidays. Contractor shall not perform any work outside of these work hours without obtaining written approval from the Contracting Officer. If weekend or evening work is required due to utility outages or other requirements, such work shall not be performed without prior written approval of the Contracting Officer and such work shall be accomplished at no additional cost to the Government. The Contracting Officer requires at least seven (7) calendar days' notice, in writing, from the Contractor to provide written approval or disapproval.

B. Observed federal holidays include:

New Year's Day	Labor Day
Martin Luther King Jr.'s Birthday	Columbus Day
Washington's Birthday	Veteran's Day
Juneteenth	Thanksgiving Day
Memorial Day	Christmas Day
Independence Day	

1.2.1 UTILITIES

A. Utility interruptions shall be approved by the Contracting Officer. The following shall apply:

1. Electrical primary power outages will be performed by 42nd Civil Engineer Squadron and shall be fully coordinated with the Contracting Officer's Representative. The Contractor shall submit to the Contracting Officer a written request for such work at least two (2) weeks prior to the desired date. Electrical primary outages shall be limited to four (4) hours.

2. Water outages will be performed by the 42nd Civil Engineer Squadron and shall be fully coordinated with the Contracting Officer's Representative. The Contractor shall submit to the Contracting Officer a written request for such work at least two (2) weeks prior to the desired date.

3. Communications Utilities
   The Contractor shall not disturb communication wiring to facilities. Where such facilities require removal of communication equipment and wiring to accomplish the work involved, the Contractor shall notify the Contracting Officer at least five (5) workdays in advance of the requirement, for scheduling such removals by the Government. The Contractor shall allow for the accomplishment of such removals by the telephone company or communications personnel for the systems they service. If construction activities damage any communication equipment or wiring, the Contractor shall restore services as soon as possible, but no later than 24-hours, and at no cost to the Government.

4. Excavation Around or Locating Existing Utilities
   Prior to the start of work, the Contractor shall identify and locate all valve or utility shut-off locations for use in the event of accidental damage. To preclude accidental damage, the Contractor shall locate all known utilities (i.e., communication, natural gas, fuel supply, etc.) by hand digging prior to any excavation with power equipment. The Contractor shall note any utilities discovered during excavations that are missing or incorrect on the contract drawings (including any erroneous dimensions on Government record drawings), or those utilities staked by the user, and clearly identify those discoveries on the as-built drawings.

1.2.2 PROTECTION OF EXISTING FACILITIES

A. The Contractor shall conduct and schedule all work in a manner to cause as little disruption as possible to the existing facilities and operation. Phased work as may be indicated on drawings or required by this contract.

B. The Contractor shall ensure that the existing building is maintained weatherproof at all times. The buildings' HVAC system shall also be maintained in full operating order by the Contractor.

1.2.3 SITE VISITATION

A. The Contractor shall be responsible to visit the project site prior to, and during, the course of construction to verify existing conditions, actual sizes, and other requirements outlined in the other sections of the specifications.

B. Existing Facilities/Job Site Verification
Record drawings, showing existing facilities and underground utilities, are available to the Contractor through the Base Civil Engineer office. The Government does not guarantee the accuracy, availability or adequacy of existing as built/record drawings. The Contractor is responsible to verify all dimensions and actual conditions when developing their contract proposal. Failure to verify the dimensions and locations will be at the Contractor's risk and shall not relieve the Contractor from accomplishing the work required by the contract at the price awarded by the Government. The Contractor shall immediately repair any utility line shown on a record drawing (or made known to the Contractor) and damaged during construction work, at no cost to the Government.

1.2.4 BASE REGULATIONS

The Contractor shall conform to all base regulations and directives pertaining to security, safety, debris removal, fire, traffic, and personnel clearances, insofar as they pertain to the Contractor's activities on Maxwell AFB. The Contractor shall ensure conformance by all employees and Subcontractors.

1.2.5 FIRE PROTECTION

The Contractor shall be responsible for conformance with base fire regulations and NFPA 241, including Appendix A. These regulations are available for review during duty hours at the Base Fire Station located in Building 1092. Fire extinguishers required during the construction period shall be furnished and maintained by the Contractor and removed by the Contractor upon acceptance of the facility by the Contracting Officer. No welding/cutting and open flame operation shall be allowed in facilities when automatic fire detection and suppression systems are out of service unless the Contractor posts a fire guard for 24 hours after welding/cutting and open flame operation or certifies the facility fire safe.

1.2.6 WORK CLEARANCE PERMIT (DIGGING PERMIT)

i. A properly completed AF Form 103, Base Civil Engineering Work Clearance Request, shall be obtained by the Contractor prior to performing any excavation.

ii. A separate AF Form 103 shall be obtained by the Contractor for each excavation to be accomplished.

iii. Contractor shall submit a request for AF Form 103 a minimum of 14 calendar days and a maximum of 28 days prior to desired start of excavation. The Contractor shall allow a minimum of 14 calendar days for processing.

iv. Each request shall be in writing and designate the location of the proposed excavation and the scheduled date.

v. The completed AF Form 103 will contain information for locating existing utilities and telephone lines. The Contractor shall keep the AF Form 103 at the excavation site and shall comply with instructions for hand excavation and with other methods of safeguarding the buried utilities.

END OF SECTION

SECTION 01 30 00
ADMINISTRATIVE
REQUIREMENTS

1.3 COORDINATION:

A. Coordinate construction operations included in different sections of the specifications to ensure efficient and orderly completion of each part of the work. Coordinate construction operations that depend on each other for proper installation, connection, and operation.

B. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the work. Such administrative activities include, but are not limited to, the following:

1. Preparation of the schedule of values if required.
2. Installation and removal of temporary facilities and controls.
3. Delivery and processing of submittals.
4. Progress meetings if required.
5. Closeout activities.

C. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.

1.3.1 SITE PROJECT SUPERINTENDENT: The contractor must have at least one qualified project designated superintendent capable of reading, writing, and conversing fluently in the English language on the job site at all times while work is in progress. In addition, if a quality control (QC) representative is required on the contract, then that individual shall also have fluent English communication skills. The site project superintendent is responsible for the quality of the work on the job and ensuring that all work performed by the contractor's forces and by subcontractor(s) is in full compliance with the construction documents. The site project superintendent is responsible for the overall construction activities at the site, including scheduling, quality, and production. The site project superintendent must maintain a physical presence at the site during all construction activities. Prior to the preconstruction conference, the contractor shall provide the name and cell phone number of the designated on-site project superintendent in writing to the CO. This information shall remain on file with the CO throughout the duration of the contract and shall be updated in writing by the contractor in the event

of and at least two (2) calendar days prior to a personnel change. The designated on-site project superintendent shall be required to attend the pre- construction conference.

1.3.2 CHARACTER OF WORK AND MECHANICS: The contractor shall execute the work in the most professional manner by qualified, careful, and efficient mechanics skilled in the trade. The Contractor's work must be executed in strict accordance with the contract documents and prevailing industry standards. Only certified journeymen in respective trades, or apprentices under the direct supervision of certified journeymen, may install, supervise installation of, or alter or repair electrical and mechanical systems. Electrical and mechanical systems include, but are not limited to: pipe, plumbing, HVAC systems, electrical wiring, fire protection systems, welding, equipment and devices. The CO will recognize as certification a current state or municipal tested and issued plumbing/gas/air conditioning and electrical license upon approval. The license must be available for government inspection at the pre-work conference and from mechanics and electricians at the jobsite throughout contract operations. For those trades not requiring a license, the contractor shall have a minimum of three (3) years' experience in the trade. The government reserves the right to request work references.

1.3.3 AVAILABILITY OF CADD DRAWING FILES: After award and upon request, the electronic "Computer-Aided Drafting and Design (CADD)" drawing files will only be made available to the contractor for use in preparation of construction data related to the referenced contract subject to the following terms and conditions.

Data contained on these electronic files shall not be used for any purpose other than as a convenience in the preparation of construction data for the referenced project. Any other use or reuse shall be at the sole risk of the contractor and without liability or legal exposure to the government. The contractor shall make no claim and waives to the fullest extent permitted by law, any claim or cause of action of any nature against the government, its agents or sub consultants that may arise out of or in connection with the use of these electronic files. The contractor shall, to the fullest extent permitted by law, indemnify and hold the government harmless against all damages, liabilities or costs, including reasonable attorney's fees and defense costs, arising out of or resulting from the use of these electronic files.

These electronic CADD drawing files are not construction documents. Differences may exist between the CADD files and the corresponding construction documents. The government makes no representation regarding the accuracy or completeness of the electronic CADD files, nor does it make representation to the

compatibility of these files with the contractor's hardware or software. In the event that a conflict arises between the signed and sealed construction documents prepared by the government and the furnished CADD files, the signed and sealed construction documents shall govern. The contractor is responsible for determining if any conflict exists. Use of these CADD files does not relieve the contractor of duty to fully comply with the contract documents, including and without limitation, the need to check, confirm and coordinate the work of all contractors for the project.

If the contractor uses, duplicates and/or modifies these electronic CADD files for use in producing construction data related to this contract, all previous indicia of ownership (seals, logos, signatures, initials and dates) shall be removed.

1.3.4 PROJECT CORRESPONDENCE: All project correspondence with MAFB personnel and all contractual issues/questions shall be coordinated with the CO.

1.3.5 ELECTRONIC MAIL (E-MAIL) ADDRESS: The contractor shall establish and maintain electronic mail (e-mail) capability along with the capability to open various electronic attachments in Microsoft® Office®, Adobe® Acrobat®, and other similar formats. Within ten (10) calendar days after contract award, the contractor shall provide the CO a single (only one) e-mail address for electronic communications from the CO related to this contract including, but not limited to contract documents, invoice information, request for proposals, and other correspondence. The CO may also use email to notify the contractor of base access conditions when emergency conditions warrant, such as hurricanes, terrorist threats, etc. Multiple email addresses will not be allowed.

It is the contractor's responsibility to make timely distribution of all CO initiated e-mail with its own organization including field office(s). The contractor shall promptly notify the CO, in writing, of any changes to this email address.

1.3.6 REQUEST FOR INFORMATION (RFI):

1.3.6.1 General: Immediately on discovery of the need for additional information or interpretation, the contractor shall prepare and submit an RFI in the form specified. Coordinate and submit RFIs in a prompt manner so as to avoid delays in the work.

1.3.6.2 Content of the RFI: Include a detailed, legible description of item needing information or interpretation.

1.3.6.2.1 Project name.

1.3.6.2.2 Project number.

1.3.6.2.3 Date.

1.3.6.2.4 Name of contractor.

1.3.6.2.5 RFI number, numbered sequentially.

1.3.6.2.6 RFI subject.

1.3.6.2.7 Specification section number and title and related paragraphs, as appropriate.

1.3.6.2.8 Drawing number and detail references, as appropriate.

1.3.6.2.9 Field dimensions and conditions, as appropriate.

1.3.6.3 Contractor's suggested resolution. If contractor's solution(s) impacts the date of completion or has a cost impact, the contractor shall state impact in the RFI.

1.3.6.4 Attachments: Include sketches, descriptions, measurements, photos, product data, coordination drawings, and other information necessary to fully describe items needing interpretation.

1.3.6.4.1 Include dimensions and details of affected materials and assemblies on attached sketches.

1.3.7 Government’s Response: The government technical representative will review each RFI, determine action required, and respond appropriately. Allow a reasonable amount of working days for the response for each RFI.

1.3.7.1 The government technical representative’s action may include a request for additional information, in which case the time for response will date from time of receipt of additional information.

1.3.7.2 If the contractor believes the RFI response warrants change in the date of completion or the contract amount, notify the CO in writing within ten (10) calendar days of receipt of the RFI response.

1.3.7.3 An RFI received from the contractor that does not contain at minimum items 1, 2, 3, 4, 5, 6, and if applicable 7, 8, or 9 above will be returned to the contractor without response.

1.4 MEETINGS:

1.4.1 Preconstruction Conference: The government will schedule and conduct a preconstruction conference at a time convenient to the government. The meeting will be conducted by the CO and will include briefings to the contractor by MAFB agencies.

1.4.1.1 Attendees: The government’s representatives, the contractor, the project superintendent, the major subcontractors, and other concerned parties shall attend the meeting.

1.4.1.2 The meeting intent is to review responsibilities and personnel assignments.

1.4.1.3 Agenda: The meeting agenda may include the following:

1.4.1.3.1 Notice to Proceed

1.4.1.3.2 Tentative construction schedule

1.4.1.3.3 Phasing

1.4.1.3.4 Work sequencing and long-lead items

1.4.1.3.5 Designation of key personnel and their duties

1.4.1.3.6 Lines of communications

1.4.1.3.7 Procedures for processing field changes and modifications

1.4.1.3.8 Procedures for RFIs

1.4.1.3.9 Submittal procedures

1.4.1.3.10 Preparation of as-built drawings and turnover documents

1.4.1.3.11 Use of the premises

1.4.1.3.12 Work restrictions

1.4.1.3.13 Working hours

1.4.1.3.14 Government's occupancy requirements

1.4.1.3.15 Responsibility for temporary facilities and controls

1.4.1.3.16 Procedures for disruptions and shutdowns

1.4.1.3.17 Construction waste management and recycling

1.4.1.3.18 Parking availability

1.4.1.3.19 Office, work, and storage areas

1.4.1.3.20 Equipment deliveries

1.4.1.3.21 First aid

1.4.1.3.22 Security

1.4.1.3.23 Progress cleaning

1.4.1.3.24 Safety

1.4.1.3.25 Briefings by MAFB agencies

1.4.2 Progress Meetings: The government may request progress meetings at regular intervals depending on scope and length of a particular project.

1.4.2.1 Attendees: The governments representatives, each contractor, subcontractor, supplier, and other entities concerned with current progress or involved in planning, coordination, or performance of future activities shall be

represented at these meetings. All participants at the meeting shall be familiar with the project.

1.4.2.2 Agenda:

1.4.2.2.1 Current work in progress

1.4.2.2.2 Review items of significance that could affect progress

1.4.2.2.3 Review of outstanding RFI's, submittals, and progress schedule

1.4.2.2.4 Other topics for discussion as appropriate to status of the project

1.4.3 Beneficial Occupancy Inspection (BOI):

1.4.3.1 A BOI may be conducted when it is in the best interest of the government to occupy, use, or accept a portion of the work prior to closing out a project contract.

1.4.3.2 Submit request in writing for a BOI to the CO. BOI requests must be submitted a minimum of three (3) business days prior to the requested date. On receipt of the request, the government will coordinate the BOI with the contractor, using agency, Civil Engineering, and inspections and will note unfulfilled requirements. The government will prepare the BOI report. CO will notify the contractor of items identified by the government that must be completed or corrected.

1.4.3.2.1 Re-inspection: Request re-inspection when the work identified in previous inspections as incomplete is completed or corrected.

1.4.4 Final Inspection: Submit a request in writing for final inspection to the CO. On receipt of request, the government will coordinate the final inspection with the contractor, using agency, Civil Engineering and inspections and will note unfulfilled requirements. The government will prepare the final inspection report. The CO will notify the contractor of items identified by the government that must be completed or corrected before final inspection will be approved.

1.4.4.1 Re-inspection: Request re-inspection when the work identified in previous inspections as incomplete is completed or corrected.

END OF SECTION

SECTION 01 33 00
SUBMITTAL PROCEDURES

1.0 SUMMARY DESCRIPTION OF REQUIREMENTS

A. This section specifies procedural requirements for non-administrative submittals, including but not limited to shop drawings, product data, manufacturer's certificate, design data, calculations, and verifications, manufacturer's instructions, manufacturer's field service reports, samples, operation and maintenance manuals, and other miscellaneous work- related submittals. These submittals are required to amplify, expand, and coordinate other information contained in the contract.

B. The Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work covered in the respective sections of the specification or statement of work.

C. Definition: For the purposes of this section, the term "Contractor" denotes the prime Contractor.

1.1 REFERENCES (Not Applicable)

1.2 SUBMITTAL CLASSIFICATION

A. Submittals are classified as follows:

1. Contracting Officer Approval: The Contracting Officer (CO) approval is required for extensions of design, critical materials, deviations, equipment whose compatibility with the entire system must be checked, and other items as designated by the CO. Within the terms of the Contract Clause entitled "Specifications and Drawings for Construction", they are considered to be "shop drawings."

2. Information Only: All submittals not requiring the Government approval will be for information only. They are not considered to be "shop drawings" within the terms of the Contract Clause referred to above.

1.3 APPROVED SUBMITTALS:

A. The approval of submittals by the CO shall not be construed as a complete check but will indicate only that the general method of construction, materials, detailing and other information are satisfactory.

B. Approval will not relieve the Contractor of the responsibility for any error, which may exist, as the Contractor is responsible for the dimensions and design of adequate connections, details, and satisfactory construction of all work. After submittals have been approved by the CO, no resubmittal for the purpose of substituting materials or equipment will be given consideration unless accompanied by an explanation as to why a substitution is necessary.

1.4 DISAPPROVED SUBMITTALS:

The Contractor shall make all corrections required by the CO and promptly furnish a corrected submittal in the form and number of copies as specified for the initial submittal. If the Contractor considers any correction indicated on the submittals to constitute a change to the contract, notice as required under the Contract Clause entitled "Changes" shall be given promptly to the CO.

1.5 GENERAL:

A. The Contractor shall submit all items listed on the Submittal Register (Material Submittal Schedule (MSS), or equivalent) or specified in the other sections of these specifications. The CO may request submittals in addition to those listed when deemed necessary to adequately describe the work covered in the respective sections. Units of weights and measures used on all submittals shall be the same used in the contract drawings. Submittals shall be made in four (4) copies unless otherwise noted on the Submittal Register to the CO. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements.

B. Prior to submittal, all items shall be checked and approved, and each respective transmittal form or material approval submittal (AF 3000, Material Approval Submittal) shall be stamped, signed and dated by the Contractor certifying that the accompanying submittal complies with the contract requirements. Submittals shall include line number of item from Government-prepared Submittal Register. Proposed deviations from the contract requirements shall be clearly identified. Submittals shall include items such as: Contractor's, manufacturer's, or fabricator's drawings; descriptive literature including (but not limited to) catalog cuts, diagrams, operating charts, or curves; test reports; test cylinders; samples; O&M manuals including parts list; certifications; warranties and other such required submittals. Submittals requiring CO approval shall be scheduled and made prior to the acquisition of the material or equipment covered thereby.

1.6 SUBMITTAL REGISTER: Material Submittal Schedule (MSS):

A submittal register on the MSS shall be provided to the Contractor as an attachment to the awarded contract. During the pre-construction meeting, the

Contractor shall meet with the CO to jointly review the CO prepared Submittal Register. The Contractor shall be responsible for providing all items listed on the Submittal Register in accordance with the scheduled submittal dates.

1.7 SCHEDULING:

A. Submittals covering component items forming a system or items that are interrelated, shall be scheduled to be coordinated and submitted concurrently. Certifications to be submitted with the pertinent drawings shall be so scheduled. The Contractor shall take special care to timely schedule the submittal date required for long lead-time items and shall allow 30 days for CO review action on all submittals except as noted below. No delays, damages, or time extensions will be allowed for time lost in late submittals.

B. All submittals will be made on AF 3000, Material Approval Submittal as specified below.

1. The number of days for CO action on the following submittals will be as indicated:

a. Submittals required on the MSS – 10 calendar days

b. Any submittal that requests or requires deviation from contract drawings or specifications – 14 calendar days

1.8 TRANSMITTAL FORM (AF 3000, Material Approval Submittal):

A. AF 3000, Material Approval Submittal shall be used for submitting both Government approved and information only submittals in accordance with the instructions on the reverse side of the form. These forms will be furnished to the Contractor by the CO. This form shall be properly completed by filling out all the heading blank spaces and identifying each item submitted.

B. Special care will be exercised to ensure proper listing of the specification paragraph and/or sheet number of the contract drawings pertinent to the data submitted for each item.

1.9 CONTROL OF SUBMITTALS:

The Contractor shall carefully control his procurement operations to ensure that each individual submittals made on or before the Contractor scheduled submittal date shown on the provided Submittal Register.

1.10 CO APPROVED SUBMITTALS:

A. Upon completion of review of submittals requiring CO approval, the submittals will be identified as having received approval by being so noted on AF 3000, Material

Approval Submittal. Such submittals shall be made in accordance with the Construction Contract Clause entitled "Specifications and Drawings for Construction" and the following: unless otherwise noted on the Submittal Register and when submitting physical documents, four (4) prints of all drawings; or, if catalog cuts, printed specifications or similar publications are used as submittals, three (3) original copies shall be submitted. One corrected copy shall be returned to the Contractor. When submitting documents for review and approval via email, only one copy is required. In cases where "trade names or equal" specifications are used, any equal substitution by the Contractor will be considered a deviation and will require approval. Any submittal requesting a deviation shall be considered as one requiring "approval" action. Payment for materials incorporated into the work will not be allowed if required approvals have not been obtained. Upon completion of review of submittals requiring CO approval, the submittals will be identified as having received approval by being so noted on AF 3000, Material Approval Submittal.

B. Risk: Do not proceed with the part of the work covered by an item submittal including purchasing, fabricating, and delivering until approval is received. Machinery, equipment, material, and articles that do not have the required approval shall be installed or used at the risk of subsequent rejection. Any fabrication or other work performed in advance of the receipt of accepted item submittals and approvals shall be entirely at the Contractor’s risk and expense.

1.11 INFORMATION ONLY SUBMITTALS:

All other submittals are considered to be "Information Only" submittals and may be subject to review action by the CO or may be simply receipt acknowledged. Any submittal “For Information Only” shall be clearly marked “FIO”. Normally, submittals for information only will not be returned. Approval of the Contracting Officer (CO) is not required on information only submittals. These submittals will be used for information purposes. The CO reserves the right to require the Contractor to resubmit any item found not to comply with the contract. This does not relieve the Contractor from the obligation to furnish material conforming to the plans and specifications and will not prevent the CO from requiring removal and replacement if nonconforming material is incorporated in the work. This also does not relieve the Contractor of the requirement to furnish samples for testing by the CO laboratory or check testing by the CO, in those instances where the technical specifications so prescribe. It shall be the Contractor's responsibility of assuring that the materials and/or equipment covered by that submittal meets the contract requirements. Any such "For Information Only" submittal found to contain errors or omissions shall be resubmitted as one requiring "approval" action. All "For Information Only" submittals shall be made in triplicate unless otherwise specified.

1.12 PROCEDURES

A. Listing: At the end of this section is a summarized listing of item submittals

requiring approval for the work. The listing is included for the convenience of users of the contract documents. The listing is not all-inclusive and additional item submittals may be required. Within 10 calendar days after receiving contract award, Contractor shall submit a copy of the summarized submittal listing with calendar dates assigned to each item submittal indicating when submittal will be received by the Government. If contract requires a pre-construction conference, Contractor may submit completed submittal listing at the conference. The list will be supplemented by submittals required for each task delivery order.

B. Transmittal Timing: Coordinate the preparation and processing of item submittals with the performance of the work. Prepare and transmit each item submittal to the Contracting Officer sufficiently in advance of the performance of related work and other applicable activities. Transmit related item submittals for the same unit of work so that processing will not be delayed by the Government's need to review submittals concurrently for coordination. No delay damages or time extensions will be allowed for time lost in late submittals.

C. Content: Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements. All submittals which are generic and list more information than is specifically required shall be marked to identify required information. Complete AF Form 3000 and attach as cover sheet for each submittal. Contractor may include multiple item numbers on an AF Form 3000.

D. Language: All item submittals shall be written in English, including documents, notes on drawings, sketches, and/or samples, calculations, manuals, and all other instances of written text and communication.

E. Units: All item submittals shall be written in English, including documents, notes on drawings, sketches, and/or samples, calculations, manuals, and all other instances of written text and communication.

F. Review Time: Allow sufficient time so that contract performance will not be delayed as a result of the time required to properly process submittals, including time for re-submittals, if necessary. Allow 10 calendar days for initial Government processing of each submittal. No extension of time will be authorized because of the Contractor's failure to transmit submittals to the Government sufficiently in advance of the work.

G. Contractor Certification: All submittals shall be carefully reviewed by an authorized representative of the Contractor prior to submission to the Government. Each submittal shall be dated, signed, and certified by the Contractor as being correct and in strict conformance with the contract documents. No consideration for review by the Government of any Contractor’s submittal will be made for any items

which have not been so certified by the Contractor. All noncertified submittals will be returned to the Contractor without action taken by the Government, and any delays caused thereby shall be the total responsibility of the Contractor.

H. Deviations: Should any item submittals required by the contract documents show deviations from the contract requirement, the Contractor shall make specific mention of such deviations in the letter of transmittal, including stating cost effects, and product and system limitations which may adversely affect the work, in order that if acceptable, suitable action may be taken for proper adjustment of the contract; otherwise the Contractor will not be relieved of the responsibility for executing the work in accordance with the contract documents and the approved submittals. Contractor shall clearly mark the proposed variation in all documentation and specifically point out deviations from contract requirements in transmittal letters. Failure to point out deviations may result in the Government requiring rejection and removal of such work at no additional cost to the Government. Deviations from contract requirements require Government approval and will only be considered when advantageous to the Government. When proposing deviations, deliver written request to the Contracting Officer, with documentation of the nature and features of the deviation and why the deviation is desirable and beneficial to the Government. If lower cost is a benefit, include an estimate of the cost savings. In addition to documentation required for deviation, include the submittal information required for the item. Allow an additional 14 calendar days beyond normal submittal review period for consideration by the Government of submittals with deviations.

I. Approval Submittals: The part of the work covered by the approved item submittal may proceed provided it complies with the requirements of the contract documents. Final acceptance will depend upon that compliance. The term “Approved” shall only indicate that there is no exception taken to the submittal. Approval of the item submittal shall not be construed as a complete check and indicates only that the general method or other information appears to meet the contract requirements. Approval does not relieve the Contractor of the responsibility for any error which may exist. After item submittals have been approved by the Contracting Officer, no resubmittal for the purpose of substituting materials or equipment, or changes to any other information will be considered unless accompanied by an explanation of why a substitution or change is necessary.

J. Disapproved Submittals: Contractor shall correct disapproved item submittals and resubmit for approval within timeframe noted. If no date is given, Contractor shall submit corrected submittal within 14 calendar days. If the Contractor considers any correction or notation on the returned submittal to constitute a change to the contract drawings, specification, or statement of work the Contractor shall notify the Contracting Officer.

K. Responsibility: The Government's review of Contractor submittals shall not relieve the Contractor of the entire responsibility for the correctness of details and dimensions and conformance to the specifications. The Contractor shall assume all responsibility and risk for any mistakes and/or costs due to any errors in submittals.

L. Inconsistencies: If a conflict or inconsistency arises between an approved item submittal and the contract documents, the contract documents shall govern.

1.13 SPECIFIC SUBMITTAL DESCRIPTIONS AND REQUIREMENTS:

Submittal requirements for individual units of work are specified in the applicable specification section or Statement of Work (SOW). Except as otherwise indicated in the individual specification sections or SOW, comply with the following requirements for each type of submittal.

A. Shop Drawings: These are technical drawings and data specially prepared for this contract including fabrication and installation drawings, setting and seaming diagrams, and coordination drawings (for use on-site). Shop drawings include drawings, diagrams and schedules specifically prepared to illustrate some portion of the work, diagrams and instructions from a manufacturer or fabricator for use in producing the product and as aids to the Contractor for integrating the product or system into the project, or drawings prepared by or for the Contractor to show how multiple systems and interdisciplinary work will be coordinated. Information required on shop drawings includes dimensions, identification of specific products and materials which are included in the work, compliance with specified standards, and notations of coordination requirements with other work. Provide special notations of dimensions that have been established by field measurements. Highlight, encircle, or otherwise indicate deviations from the contract documents on the shop drawings. Furnish one hard copy and one electronic copy.

B. Product Data: This data includes standard printed information on manufactured products that has not been specially prepared for this contract, including manufacturers' product specifications illustrating size, physical appearance and other characteristics of materials, installation instructions, standard color charts, catalog cuts, illustrations, schedules, standard wiring diagrams, standard product operating and maintenance manuals, and samples of warranty language when the contract requires extended product warranties. General information required specifically as product data includes manufacturers' standard printed recommendations for application and use, compliance with recognized standards of trade associations and testing agencies, the application of their labels and seals (if any), special notation of dimensions which have been verified by way of field measurement, and special coordination requirements for interfacing the material,

product, or system with other work. Furnish three hard copies and one electronic copy.

C. Samples: These are physical examples of work, including, swatches showing color, texture, and pattern, color-range sets, and units of work to be used for independent inspection and testing. Samples include fabricated or unfabricated physical examples of materials, equipment or workmanship that illustrate functional and aesthetic characteristics of a material or product and establish standards by which the work can be judged, color samples from the manufacturer's standard line (or custom color samples if specified) to be used in selecting or approving colors for the project, and field samples and mock-ups constructed on the project site to establish standards by which the ensuring work can be judged. This includes assemblies or portions of assemblies which are to be incorporated into the project and those which will be removed at conclusion of the work. Submit samples for the Contracting Officer's visual review of general kind, color, pattern, and texture for a final check of the coordination of these characteristics with other related elements of the work and for quality control comparison of these characteristics between the final sample submittal and the actual work as it is delivered and installed. Submit one (1) each.

D. Design Data: Design data includes design calculations, mix designs, analyses, or other data pertaining to a part of work. Refer to individual sections of the specification or statement of work for required quantities, formats, and signatures or certifications required. Furnish three hard copies and one electronic copy.

E. Test Plans and Reports: Test plans shall include planned testing, including a description of the test, equipment and supplies needed, and step-by- step notation of test activities and tasks. Test reports include reports signed by an authorized official of a testing laboratory that a material, product. or system identical to the material, product, or system to be provided has been tested in accordance with the specified requirements. Testing shall have been within three years of date of contract award for the project. Reports also include findings of tests required to be performed by the Contractor on an actual portion of the work or prototype prepared for the project before shipment to the job site, findings of tests made at the job site or on a sample taken from the job site, investigation reports, daily logs and checklists, and final acceptance test and operational test procedures. Furnish three hard copies and one electronic copy of each such report required.

F. Certificates: These include statements printed on the manufacturer's letterhead and signed by the responsible officials of the manufacturer of a product, system or material attesting that the product, system, or material meets specification requirements. Certificates include documentation required of the Contractor, or of a manufacturer, supplier, installer, or subcontractor through the Contractor, to further demonstrate the quality of orderly progressions of a portion of the work by

documenting procedures, acceptability of methods or personnel qualifications. Examples include confined space entry permits, and text of posted operating instructions. Certificates shall be dated after award of the project contract and clearly name the project. Furnish three hard copies and one electronic copy of each certificate required.

G. Manufacturer's Instructions: Preprinted material describing installation of a product, system, or material, including special notices and Safety Data sheets concerning impedances, hazards, and safety precautions. Furnish three (3) hard copies and one electronic copy.

H. Manufacturer's Field Reports: Documentation of the testing and verification actions taken by a manufacturer's representative at the jobsite, in the vicinity of the job site, or on a sample taken from the job site, on a portion of the work, during or after installation, to confirm compliance with the manufacturer's standards or instructions. The documentation shall be signed by an authorized official of a testing laboratory or agency and shall state the test results, and indicate whether the material, product, or system has passed or failed the test. Furnish three hard copies and one electronic copy.

I. Operation and Maintenance Data: Data furnished by the manufacturer, or the system provider, to the equipment operating and maintenance personnel, including manufacturer's help and product line documentation necessary to maintain and install the equipment, and needed by operating and maintenance personnel for the safe and efficient operation, maintenance, and repair of the item. The data is intended to be incorporated in an operations and maintenance manual or control system. Furnish two hard copies and one electronic copy.

J. Final Design Drawings and Documentation: Final design documentation including drawings, specifications, estimates, and other required deliverables. Electronic documentation submitted shall include every associated component file of drawings and other documentation, including raster images, jpeg, tiff, Excel, and any related items required to view, modify, or manipulate the electronic files. Furnish a CD-ROM of all final design documentation, and drawings in AutoCAD 2020 format, to the Contracting Officer for approval prior to applying for final payment.

K. Record (As-Built) Drawings: Record drawings showing final configuration of work accomplished. Show all changes, additions, and deviations from the original contract drawings and documentation. If no changes occur, furnish certification to that effect. Drawings may be redlined hardcopies or electronic drawings and shall accurately show as-built conditions during the progress of the job. If electronic, furnish drawings on a CD-ROM, in AutoCAD 2020 format, including every associated component file of the drawings, including raster images, jpeg, tiff,

Excel, and any related items required to view, modify, or manipulate the electronic files. Submit to the Contracting Officer for approval prior to applying for final payment.

L. Miscellaneous Submittals: These are work-related, non-administrative submittals that do not fit in the previous categories, including the following:

1. Maintenance agreements. Furnish one hard copy and one (1) electronic copy.

2. Survey data and reports. Furnish one hard copy and one (1) electronic copy.

3. Project photographs. Furnish both hard copies and digital files.

4. Keys and other security protection devices.

5. Maintenance tools, spare parts, and overrun or maintenance stock. Refer to individual sections of the specification for required quantities of spare parts, extra and overrun stock, maintenance tools and devices, keys, and similar physical units to be submitted.

6. Qualification certificates. Furnish one hard copy and one (1) electronic copy.

7. Employee training certificates and documentation showing successful completion of training.

8. Documentation of percentage of recovered material content used during contract.

9. Contractor safety and work plans and schedules.

10. Warranties.

1.14 REQUIRED SUBMITTALS

No.	Submittal Description	Due
1	Outage Request	2 weeks prior to outage
3	Record As-Built Drawings	Before final inspection
4	Existing conditions report which could be construed as damage resulting from work	Before beginning work
5	Safety and health plan	10 days after contract award

6	Percentage of recovered material content	Before final inspection
7	Disallowed products locations	Before final inspection
8	Asbestos locations	Before final inspection
10	Hazardous material information	Before beginning work
11	Summarized submittal listing with delivery dates	10 days after contract award
12	Work sequence schedule	Before beginning work
13	Stormwater Permit	Before beginning work
14	Stormwater Pollution Prevention Plan and Notice of Intent	Five (5) days after contract award
15	Notice of termination	When area is approved as stabilized
16	Proposed Demolition Methods and Operations	Before beginning work
18	Lights/Barricades quantity and size	Prior to placement
19	Shop Drawings	Prior to placement
20	Manufacturers' Certificate	Prior to placement
28	Imported Material Source	Prior to placement
29	Site Clearing Plan	Before beginning work
30	Erosion Control Plan Using Best Management Practices	Before beginning work
31	Traffic Control Plan	Before beginning work
32	Demolition and Excavation Plan	Before beginning work

END OF SECTION

SECTION 01 45 00
REGULATORY REQUIREMENTS

PART 1 GENERAL

1.1 This section lists regulations, codes, and standards which specify procedural and administrative requirements imposed upon the work.

1.2 The Contractor shall comply with provisions of the following documents to the extent referenced herein.

A. Government documents:
   1. Air Force Federal Acquisition Regulation (AFFARS):
      a. AFFARS 52.223-9 Estimate of Percentage of Recovered Material Content for EPA-Designated Items, 2008.
      b. 5352.223-9000 Elimination of Use of Class I Ozone Depleting Substances (ODS), April2003.
   2. Architectural Barriers Act, 1968
   3. Code of Federal Regulations:
      a. 29 CFR 1926.650 Excavation, 2008.through 652
      b. 29 CFR 1926.1101 Asbestos, 2008.
      c. 40 CFR 261 Identification and Listing of Hazardous Wastes, 2008.
      d. 40 CFR 370 EPA Hazardous Chemical Reporting and Community Right to Know Requirement, 2008.
   4. Federal Highway Administration Manual on Uniform Traffic Control Devices (MUTCD) for Sheets and Highways, Latest Edition.
   5. Alabama Department of Environment Management:
      a. Alabama Erosion and Sediment Control Handbook, Latest Edition.
   6. Alabama Department of Transportation Standard Specifications for Road and Bridge Construction (SSRBC), Latest Edition.
   7. Unified Facilities Criteria:
      a. UFC 3-120-01-03 Air Force Sign Standard.
   8. US Army Corp of Engineers:
      a. USACE EM 385-1-1 Safety and Health Requirements Manual, 2014.

B. Non-Governmental documents:
   1. American Architectural Manufacturers Association:
   2. American Association of State Highway and Transportation Officials:
   3. American Concrete Institute:
   4. ASTM International:

C. Drawings: Furnished with each task order.

END OF SECTION

SECTION 01 50 00
CONSTRUCTION FACILITIES & TEMPORARY CONTROLS

1.0 CONTRACTOR'S USAGE OF FACILITIES:

A. The Contractor shall provide a properly and regularly maintained portable toilet for use by workers.

B. Contractor shall not enter the occupied portion of the building to use restrooms, telephones, or other facilities unless authorized in the TO.

C. Smoking/Tobacco use is prohibited in all Government facilities under this contract. This includes E cigarettes, Vapes, and all tobacco products. Tobacco use is allowed in designated areas only.

1.1 WORK SEQUENCE

In addition to Progress Schedule, the Contractor shall submit for approval by the Contracting Officer two (2) copies of a work sequence schedule showing the sequence of work by area including estimated dates for beginning work in each area. No work shall commence until approval of the work sequence schedule. A written schedule shall be provided.

1.2 POLICE PROTECTION

The 42nd Security Forces Squadron (SFS) is responsible for overall base security and traffic control of vehicles entering or leaving Maxwell AFB. The Contractor is required to conform to all appropriate Air Force Security Regulations and shall not interfere with the performance of Security Forces duties and responsibilities. The Contractor shall be responsible for obtaining all necessary security passes for personnel, Subcontractor's personnel, and all vehicles.

1.3 STREET CLOSINGS

Street closings will be limited to partial, one lane closings whenever possible. Any partial or full street closing shall be requested in writing at least two (2) weeks prior to the desired date.

1.4 CONTRACTOR FURNISHED COMMUNICATIONS

Contractor's Superintendent shall be equipped with a cellular telephone and be reachable by telephone at any time during the normal workday.

1.5 CLEANUP

Construction debris, waste materials, packaging material and the like shall be removed from the work site daily. Any dirt or mud which is tracked onto paved or surfaced roadways shall be cleaned away. Materials resulting from demolition activities which are salvageable shall be stored within the fenced area described

above or at the supplemental storage area. Stored material not in trailers, whether new or salvaged, shall be neatly stacked when stored.

END OF SECTION

SECTION 01 57 23
STORMWATER POLLUTION PREVENTION MEASURE'S

PART 1 – GENERAL

1.0 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM INTERNATIONAL (ASTM)

ASTM D 4439	(2004) Geosynthetics
ASTM D 4491	(1999; R 2004) Water Permeability of Geotextiles by Permittivity
ASTM D 4533	(2004)
ASTM D 4632	(1991; R 2014) Grab Breaking Load and Elongation of Geotextiles
ASTM D 4751	(2004) Determining Apparent Opening Size of a Geotextile
ASTM D 4873	(2002) Identification, Storage and Handling of Geosynthetic Rolls and Samples

1.1 GENERAL REQUIREMENTS

The Contractor shall implement the storm water pollution prevention measures specified in this section in a manner which will meet the requirements of the National Pollution Discharge Elimination System (NPDES) permit attached to that Section.

1.2 SUBMITTALS

A. The Contractor shall prepare an Erosion Control Plan and Storm Water Pollution Prevention Plan for this project that meets the requirements of this section.

B. The Contractor shall submit an Erosion Control Plan and a Storm Water Pollution Prevention Plan for review and approval prior to being released to start construction activities.

1.3 EROSION AND SEDIMENT CONTROLS

The controls and measures required by the Contractor are described below.

A. Stabilization Practices
The stabilization practices to be implemented shall include, but not be limited to, temporary seeding, mulching, sod stabilization, vegetative buffer strips, protection of trees, preservation of mature vegetation, silt fences, ditch checks, hay bale buffers, etc. The Contractor shall record the dates when the major grading activities occur, (e.g., clearing and grubbing, excavation, embankment, and

grading); when construction activities temporarily or permanently cease on a portion of the site; and when stabilization practices are initiated.

B. Structural Practices
Structural practices shall be implemented to divert flows from exposed soils, temporarily store flows, or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Structural practices shall be implemented in a timely manner during the construction process to minimize erosion and sediment runoff. Structural practices may include some or all of the following devices:
   a. Silt fences
   b. Straw bales
   c. Diversion dikes
   d. Drainage swales
   e. Check dams
   f. Subsurface drains
   g. Pipe Slope drains
   h. Level spreaders
   i. Storm drain inlet protection
   j. Rock outlet protection
   k. Sediment traps
   l. Reinforced soil retaining systems
   m. Gabions
   n. Sediment basins
   o. Other devices are the jobsite requires

C. The permanent stabilization practices which are to be installed under the contract may be specified in other section of the specifications. These are measures that shall be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed. Structural measures should be placed on upland soils to the degree attainable. The installation of these devices may be subject to Section 404 of the Clean Water Act.

D. A goal of 80 percent removal of total suspended solids from these flows which exceed predevelopment levels should be used in designing and installing storm water management controls (where practicable). Where this goal is not met, the Contractor shall provide justification for rejecting each practice listed above based on site conditions.

E. Velocity dissipation devices shall be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive velocity flow from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected.

F. Silt Fences: The Contractor shall provide silt fences as a temporary structural practice to minimize erosion and sediment runoff. Silt fences shall be properly installed to effectively retain sediment immediately after completing each phase of work where erosion would occur in the form of sheet and rill erosion (e.g., clearing and grubbing, excavation, embankment, and grading). Silt fences shall be installed in the locations indicated on the drawings.

G. Straw Bales: The Contractor shall provide bales of straw as a temporary structural practice to minimize erosion and sediment runoff. Bales shall be properly placed to effectively retain sediment immediately after completing each phase of work (e.g., clearing and grubbing, excavation, embankment, and grading) in each independent runoff area (e.g., after clearing and grubbing in an area between a ridge and drain, bales shall be placed as work progresses, bales shall be removed/replaced/relocated as needed for work to progress in the drainage area). Areas where straw bales are to be used are shown on the drawings. Rows of bales of straw shall be provided as follows:
    a. Along the downhill perimeter edge of all areas disturbed.
    b. Along the top of the slope or top bank of drainage ditches, channels, swales, etc. that traverse disturbed areas.
    c. Along the toe of all cut slopes and fill slopes of the construction areas.
    d. Space rows a maximum of 200 feet apart in drains with slopes equal to or less than 5 percent and 100 feet apart in drains with slopes steeper than 5 percent. If drainage ditches have slopes above and below the 5 percent limit the spacing should be shown on the drawings.
    e. Perpendicular to the flow in the bottom of existing drainage ditches, channels, swales, etc. that traverse disturbed areas or carry runoff from disturbed areas. Rows shall be spaced as shown on the drawings.
    f. Perpendicular to the flow in the bottom of new drainage ditches, channels, and swales. Rows shall be spaced as shown on the drawings.
    g. At the entrance to culverts that receive runoff from disturbed areas.

H. Diversion Dikes: Diversion dikes shall have a maximum channel slope of two (2) percent and shall be adequately compacted to prevent failure. The minimum height measured from the top of the dike to the bottom of the channel shall be 18 inches. The minimum base width shall be six (6) feet and the minimum top width shall be two (2) feet. The Contractor shall ensure that the diversion dikes are not damaged by construction operations or traffic. Diversion dikes shall be located as shown on the drawings.

1.4 TEMPORARY EROSION CONTROL MEASURES

GENERAL: All construction that disturbs the ground cover, either natural or manmade, shall be subject to erosion control measures. The Contractor shall

evaluate the scope of work to determine the level of erosion control measures to be implemented. The goal of this work is to save valuable topsoil and prevent environmentally damaging non-point source pollution to waters of the U.S. from vegetation, soil, and construction debris released from construction sites. The Contractor shall be responsible for the design of site-specific temporary measures and implementation of work procedures, which ensure compliance with the storm water permits issued to Maxwell AFB. As a minimum, the requirements of this section and Maxwell AFB standard details shall be adhered to when developing and implementing temporary measures. This does not preclude the Contractor from proposing other methods on a site-specific basis. If the Contractor proposes other methods, typical installation details and specifications shall be provided by the Contractor for approval prior to implementation. Performance will be determined by the effectiveness of the program in preventing soil and other contaminants from leaving the construction site. Final stabilization will be achieved when a uniform perennial vegetative cover with a density of 80 percent of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures.

A. CONSTRUCTION SITES LESS THAN ONE ACRE: Contractor shall adopt best management practices and prevent direct flow of storm water from construction sites or staging areas into the storm drainage system. The site shall be maintained visually free of gully erosion and runoff shall not be allowed to increase turbidity at the receiving streams immediately downstream of the construction site or the base boundary. The “storm water system” is defined as permanently maintained open channels, pipes, culverts, and combinations of these features that carry storm water across the base boundaries. Roadway culverts 18 inches or less in diameter, which drain into a grass roadway ditch or swale, are not considered part of the storm water system.

B. CONSTRUCTION SITES GREATER THAN 1.0 ACRE BUT LESS THAN 5.0 ACRES OUTSIDE WATERCOURSES: Contractor shall post an On-site Storm Water Construction Notice, develop a Storm Water Pollution Prevention Plan (SWPPP), utilize best management practices (BMPs) to design and implement temporary control measures which reduce total suspended solids by 80 percent during an annual storm event (two year recurrence), conduct required inspections of stormwater control measures and submit reports detailing inspection results. These measures shall ensure the water quality of receiving streams remains at or above the standards set by the base storm water permit during an event of this magnitude. Quality control may be exercised by monitoring storm flows in the receiving streams immediately downstream of the construction site or the base National Pollutant Discharge Elimination System (NPDES) discharge point whichever is most critical.

C. CONSTRUCTION SITES GREATER THAN 5.0 ACRES BUT LESS THAN 10.0 ACRES OUTSIDE WATERCOURSES: Contractor shall post an ADEM Permit Certificate, develop a Storm Water Pollution Prevention Plan (SWPPP), utilize best management practices (BMPs) to design and implement temporary control measures which reduce total suspended solids by 80 percent during an annual storm event (two-year recurrence), conduct required inspections of stormwater control measures and submit reports detailing inspection results. Contractor shall design and implement temporary control measures which reduce total suspended solids by 80percent during an annual storm event (two-year recurrence). These measures shall ensure the water quality of receiving streams remains at or above the standards set by the base storm water permit during an event of this magnitude. Quality control may be exercised by monitoring storm flows in the receiving streams immediately downstream of the construction site or the base National Pollutant Discharge Elimination System (NPDES) discharge point whichever is most critical. The Contractor shall submit the Alabama Department of Environmental Management (ADEM) form, “Notice of Intent (NOI) for Discharges of Storm water Associated with Industrial Activity (From Construction Activity)”.

D. CONSTRUCTION SITES GREATER THAN 10.0 ACRES OUTSIDE WATERCOURSES: Contractor shall post an ADEM Permit Certificate, develop a Storm Water Pollution Prevention Plan (SWPPP), utilize best management practices (BMPs) to design and implement temporary control measures which reduce total suspended solids by 80 percent during an annual storm event (two-year recurrence), conduct required inspections of stormwater control measures and submit reports detailing inspection results. Contractor shall design and implement temporary control measures which reduce total suspended solids by 80 percent during an annual storm event (two-year recurrence). These measures shall ensure the water quality of receiving streams remains at or above the standards set by the base storm water permit during an event of this magnitude. Quality control may be exercised by monitoring storm flows in the receiving streams immediately downstream of the construction site or the base National Pollutant Discharge Elimination System (NPDES) discharge point whichever is most critical. The Contractor shall submit the Alabama Department of Environmental Management (ADEM) form, “Notice of Intent (NOI) for Discharges of Storm water Associated with Industrial Activity (From Construction Activity)”. The Contractor shall submit the SWPPP to ADEM for review/approval before commencement of construction.

E. CONSTRUCTION SITES WITHIN WATER COURSES AND FLOODPLAINS: The Contractor shall adopt a combination of management practices and control measures which maintain the stability of channels and slopes within the two-year storm flow cross section. The Contractor shall submit engineering drawings showing the plan and profile of proposed construction work to the Contracting

Officer. These drawings, along with plans for temporary erosion control measures, will be used by the base to obtain a dredging permit from the Mobile District Army Corps of Engineers.

F. STORM WATER PERMITS LIMITS: The storm water permit limits for all waters leaving Maxwell AFB are assumed to be the same as the four permitted outfalls. These perimeters will be satisfied by waters flowing in watercourses immediately below all construction sites. The limiting daily maximums are as follows:
Chemical Oxygen Demand: 120 milligrams/liter
Total Suspended Solids: 100 milligrams/liter
Oil and Grease: 15 milligrams/liter
pH: Range from 6.0 to 9.0

G. MAINTENANCE AND RESTORATION: The Contractor shall repair and maintain all erosion control measures throughout the project area until permanent erosion control measures (seeding, sod, pavement, building construction, etc.) that eliminate project generated non-point source pollution from entering the storm water system are established. Maintenance and repair of the temporary erosion control measures may extend into the warranty period until such time as the permanent measures are fully established. Upon completion of the permanent erosion control measures the Contractor shall remove and dispose or recycle all materials used for this work at no additional cost to the Government. When temporary erosion control requires the use of temporary settling basins (dry ponds), they shall be drained, and the ground returned to its original or finished contour and ground cover at the completion of the contract.

H. PREVENTION OF HAZARDOUS SUBSTANCE DISCHARGE: The Contractor shall prepare a pollution prevention plan and site-specific spill prevention and countermeasures plan for all hazardous substances and petroleum products temporarily stored on site in excess of reportable quantities as defined in 40 CFR 302.

I. SUBMITTALS:

a. The Contractor shall supply three (3) copies of the NOI, a certified receipt from ADEM for the NOI, and temporary stormwater erosion control plans and specifications, affidavit or pollution prevention plan, and site-specific prevention and countermeasures plan. These submittals shall be required before a notice to proceed is issued on projects in this category.

b. For all projects requiring an NOI, the Contractor shall submit a termination notice to ADEM upon completion of site stabilization with permanent measures and site restoration.

J. It is the policy of the Air Force to minimize construction and maintenance activities in streams, wetlands and 100-year flood plains. Any temporary construction, such as falsework or coffer dams, constructed within these areas shall be approved by the Air Force at higher headquarters and by other Federal agencies before work is begun. When such activities are unavoidable, due to the nature of the work, the Contractor shall abide by all Federal, state and Air Force policy regarding streams, flood plains and wetlands. Detailed plans of proposed temporary construction shall be submitted to the Contracting Officer and approval received from all approval agencies and higher headquarters before work is begun.

PART 2 – PRODUCTS

2.0 COMPONENTS FOR SILT FENCES

A. Filter Fabric: The geotextile shall comply with the requirements of ASTM D4439, and shall consist of polymeric filaments, which are formed into a stable network such that filaments retain their relative positions. The filament shall consist of a long-chain synthetic polymer composed of at least 85 percent by weight of ester, propylene, or amide, and shall contain stabilizers and/or inhibitors added to the base plastic to make the filaments resistance to deterioration due to ultraviolet and heat exposure. Synthetic filter fabric shall contain ultraviolet ray inhibitors and stabilizers to provide a minimum of six months of expected usable construction life at a temperature range of 0 to 120 degrees F. The filter fabric shall meet the following requirements:

FILTER FABRIC FOR SILT SCREEN FENCE

PHYSICAL PROPERTY TEST PROCEDURE STRENGTH REQUIREMENT

Grab Tensile ASTM D4632 100 lbs. min.

Elongation (%) 30 percent max.

Trapezoid Tear ASTM D4533 55 lbs. min.

Permittivity ASTM D4491 0.2 sec-1

AOS (U.S. Std Sieve) ASTM D4751 20-100

B. Silt Fence Stakes and Posts
The Contractor may use either wooden stakes or steel posts for fence construction. Wooden stakes utilized for silt fence construction, shall have a minimum cross section of two (2) inches by two (2) inches when oak is used and four (4) inches by four (4) inches when pine is used, and shall have a minimum length of five (5)

feet. Steel posts (standard "U" or "T" section) utilized for silt fence construction, shall have a minimum weight of 1.33 pounds per linear foot and a minimum length of five (5) feet.

C. Mill Certificate or Affidavit
A mill certificate or affidavit shall be provided attesting that the fabric and factory seams meet chemical, physical, and manufacturing requirements specified above. The mill certificate or affidavit shall specify the actual Minimum Average Roll Values and shall identify the fabric supplied by roll identification numbers. The Contractor shall submit a mill certificate or affidavit signed by a legally authorized official from the company manufacturing the filter fabric.

D. Identification Storage and Handling
Filter fabric shall be identified, stored, and handled in accordance with ASTM D4873.

2.1 COMPONENTS FOR STRAW BALES:

The straw in the bales shall be stalks from oats, wheat, rye, barley, rice, or from grasses such as Byhalia, Bermuda, etc., furnished in air dry condition. The bales shall have a standard cross section of 14 inches by 18 inches. All bales shall be either wire-bound or string-tied. The Contractor may use either wooden stakes or steel posts to secure the straw bales to the ground. Wooden stakes utilized for this purpose, shall have minimum dimensions of two (2) inches by two (2) inches in cross section and shall have a minimum length of three (3) feet. Steel posts (standard "U" or "T" section) utilized for securing straw bales, shall have a minimum weight of 1.33 pounds per linear foot and a minimum length of three (3) feet.

PART 3 – EXECUTION

3.0 INSTALLATION OF SILT FENCES

Silt fences shall extend a minimum of 16 inches above the ground surface and shall not exceed 34 inches above the ground surface. Filter fabric shall be from a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are unavoidable, filter fabric shall be spliced together at a support post, with a minimum six (6) inch overlap, and securely sealed. A trench shall be excavated approximately four (4) inches wide and four (4) inches deep on the upslope side of the location of the silt fence. The four (4) inch by four (4) inch trench shall be backfilled and the soil compacted over the filter fabric. Silt fences shall be removed upon approval by the Contracting Officer.

3.1 INSTALLATION OF STRAW BALES

Straw bales shall be placed in a single row, lengthwise on the contour, with ends of adjacent bales tightly abutting one another. Straw bales shall be installed so that bindings are oriented around the sides rather than along the tops and bottoms of the bales in order to prevent deterioration of the bindings. The barrier shall be entrenched and backfilled. A trench shall be excavated the width of a bale and the length of the proposed barrier to a minimum depth of four (4) inches. After the bales are staked and chinked (gaps filled by wedging with straw), the excavated soil shall be backfilled against the barrier. Backfill soil shall conform to the ground level on the downhill side and shall be built up to four (4) inches against the uphill side of the barrier. Loose straw shall be scattered over the area immediately uphill from a straw bale barrier to increase barrier efficiency. Each bale shall be securely anchored by at least two stakes driven through the bale. The first stake or steel post in each bale shall be driven toward the previously laid bale to force the bales together. Stakes or steel pickets shall be driven a minimum 18 inches deep into the ground to securely anchor the bales.

3.2 MAINTENANCE

A. The Contractor shall maintain the temporary and permanent vegetation, erosion and sediment control measures, and other protective measures in good and effective operating condition by performing routine inspections to determine condition and effectiveness, by restoration of destroyed vegetative cover, and by repair of erosion and sediment control measures and other protective measures. The following procedures shall be followed to maintain the protective measures.

B. Silt Fence Maintenance
Silt fences shall be inspected in accordance with paragraph 3.3 INSPECTIONS. Any required repairs shall be made promptly. Close attention shall be paid to the repair of damaged silt fence resulting from end runs and undercutting. Should the fabric on a silt fence decompose or become ineffective, and the barrier is still necessary, the fabric shall be replaced promptly. Sediment deposits shall be removed when deposits reach one-third of the height of the barrier. When a silt fence is no longer required, it shall be removed. The immediate area occupied by the fence and any sediment deposits shall be shaped to an acceptable grade. The areas disturbed by this shaping shall be sodded or seeded (as specified on the contract drawings).

C. Straw Bale Maintenance
Straw bale barriers shall be inspected in accordance with paragraph 3.3 INSPECTIONS. Close attention shall be paid to the repair of damaged bales, end runs and undercutting beneath bales. Necessary repairs to barriers or replacement of bales shall be accomplished promptly. Sediment deposits shall be removed when deposits reach one-half of the height of the barrier. Bale rows used to retain sediment shall be turned uphill at each end of each row. When a straw bale barrier is no longer required, it shall be removed. The immediate area

occupied by the bales and any sediment deposits shall be shaped to an acceptable grade. The areas disturbed by this shaping shall, be sodded or seeded (as specified on the contract drawings).

D. Diversion Dike Maintenance
Diversion dikes shall be inspected in accordance with paragraph 3.3 INSPECTIONS. Close attention shall be paid to the repair of damaged diversion dikes and necessary repairs shall be accomplished promptly. When diversion dikes are no longer required, they shall be shaped to an acceptable grade. The areas disturbed by this shaping shall, be sodded or seeded as specified on the contract drawings.

3.3 INSPECTIONS

A. General
The Contractor shall inspect disturbed areas of the construction site, areas used for storage of materials that are exposed to precipitation that have not been finally stabilized, stabilization practices, structural practices, other controls, and area where vehicles exit the site at least once every 14 calendar days and within 24 hours of the end of any storm that procedures 0.5 inches or more rainfall at the site. Where sites have been finally stabilized, such inspection shall be conducted at least once every month.

B. Inspections Details
Disturbed areas and areas used for material storage that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the Storm Water Pollution Prevention Plan shall be observed to ensure that they are operating correctly. Discharge locations or points shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. Locations where vehicles exit the site shall be inspected for evidence of offsite sediment tracking.

C. Inspection Reports
For each inspection conducted, the Contractor shall prepare a report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of the Storm Water Pollution Prevention Plan, maintenance performed, and actions taken. The report shall be furnished to the Contracting Officer within 24 hours of the inspection. A copy of the inspection report shall be maintained on the job site.

END OF SECTION

The following Divisions are expected to be used in certain TO's.

DIVISION 02	EXISTING CONDITIONS
02 40 00	Demolition and Structure Moving
02 50 00	Site Remediation
02 60 00	Contaminated Site Material Removal
DIVISION 03	CONCRETE
03 10 00	Concrete Forming and accessories
03 60 00	Grouting
03 80 00	Concrete Cutting and Boring
DIVISION 04	MASONRY
04 20 00	Unit Masonry
04 40 00	Stone Assemblies
04 70 00	Manufactured Masonry
DIVISION 05	METALS
05 10 00	Structural Metal Framing
05 50 00	Metal Fabrications
DIVISION 06	WOOD, PLASTICS, AND COMPOSITES
06 10 00	Rough Carpentry
06 20 00	Finish Carpentry
06 40 00	Architectural Woodwork
06 70 00	Structural Composites
06 80 00	Composite Fabrications
DIVISION 07	THERMAL AND MOISTURE PROTECTION
07 10 00	Damp proofing and Waterproofing
07 20 00	Thermal Protection
07 30 00	Steep Slope Roofing
07 40 00	Roofing and Siding Panels
07 50 00	Membrane Roofing
07 60 00	Flashing and Sheet Metal
07 80 00	Fire and Smoke Protection

07 90 00	Joint Protection

DIVISION 08	OPENINGS
08 10 00	Doors and Frames
08 30 00	Specialty Doors and Frames
08 40 00	Entrance Storefronts and Curtin Walls
08 50 00	Windows
08 60 00	Roof Windows and Skylights
08 70 00	Hardware
08 80 00	Glazing
08 90 00	Louvers and Vents

DIVISION 09	FINISHES
09 20 00	Plaster and Gypsum Board
09 30 00	Tiling
09 50 00	Ceilings
09 60 00	Flooring
09 70 00	Wall Finishes
09 80 00	Acoustic Treatment
09 90 00	Painting and Coating

DIVISION 10	SPECIALTIES
10 10 00	Information Specialties
10 20 00	Interior Specialties
10 40 00	Safety Specialties
10 70 00	Exterior Specialties
10 80 00	Other Specialties

DIVISION 11	EQUIPMENT
11 10 00	Vehicle and Pedestrian Equipment
11 60 00	Entertainment and Recreational Equipment

DIVISION 12	FURNISHING
12 20 00	Window Treatments
12 30 00	Casework
12 60 00	Multiple Seating

DIVISION 13	SPECIAL CONSTRUCTION

13 10 00	Special Facility Components
13 20 00	Special Purpose Rooms
13 40 00	Integrated Construction

DIVISION 14	CONVEYING EQUIPMENT
14 20 00	Elevators
14 40 00	Lifts

DIVISION 21	FIRE SUPPRESSION
21 10 00	Water-Based Fire Suppression Systems
21 20 00	Fire-Extinguishing Systems
21 30 00	Fire Pumps
21 40 00	Fire-Suppression Water Storage

DIVISION 22	PLUMBING
22 10 00	Plumbing Piping
22 30 00	Plumbing Equipment
22 40 00	Plumbing Fixtures
22 50 00	Pool and Fountain Plumbing System

DIVISION 23	HEATING, VENTILATION AND AIR CONDITIONING (HVAC)
23 10 00	Facility Fuel Systems
23 20 00	HVAC Piping and Pumps
23 30 00	HVAC Air Distribution
23 40 00	HVAC Air Cleaning Devices
23 50 00	Central Heating Equipment
23 60 00	Central Cooling Equipment
23 70 00	Central HVAC Equipment
23 80 00	Decentralized HVAC Equipment

DIVISION 25	INTEGRATED AUTOMATION
25 10 00	Integrated Automation Network Equipment
25 30 00	Integrated Automation Instrumentation and Terminal Devices
25 50 00	Integrated Automation Facility Controls
25 90 00	Integrated Automation Control Sequences

ELECTRICAL

DIVISION 26	Medium Voltage Electrical Distribution
26 10 00	Low Voltage Electrical Distribution
26 20 00	Facility Electrical Power generating and
26 30 00	Storage Equipment
	Electrical Protection
26 40 00	Lighting
26 50 00	
	COMMUNICATIONS
DIVISION 27	Structural Cabling
27 10 00	Data Communications
27 20 00	Voice Communications
27 30 00	Audio-Video Communications
27 40 00	Distributed Communications and Monitoring
27 50 00	
	ELECTRONIC SAFETY AND SECURITY
DIVISION 28	Access Control
28 10 00	Video Surveillance
28 20 00	Security Detection, Alarm, and Monitoring
28 30 00	Life Safety
28 40 00	
DIVISION 31	EARTHWORK
31 10 00	Site Clearing
31 20 00	Earth Moving
31 40 00	Shoring and Underpinning
31 50 00	Excavation Support and Protection
31 60 00	Special Foundations and Load bearing
	Elements

DIVISION 32	EXTERIOR IMPROVEMENTS
32 30 00	Site Improvements
32 80 00	Irrigation
32 90 00	Planting

DIVISIONS 33	UTILITIES
33 10 00	Water Utilities
33 30 00	Sanitary Sewage
33 40 00	Stormwater Utilities
33 50 00	Hydronic and Steam Energy Utilities
33 70 00	Electrical Utilities
DIVISIONS 34	TRANSPORTATION
34 40 00	Transportation Signaling and Control Equipment
DIVISIONS 35	Not Used
DIVISIONS 40	Not Used
DIVISIONS 41	PROCESS EQUIPMENT
41 20 00	Piece Material Handling Equipment
DIVISIONS 42-48	Not Used

This section has been written to cover some (but not all) situations that you will encounter. Specific project details will be included within individual TO's. Depending on the requirements of the specific project, you may have to add material, delete items, or modify what is currently written.

P A R T 1 - G E N E R A L

SCOPE

The work under this section includes basic requirements, which are applicable to all Division sections. This section includes information common to two or more technical specification sections or items that are of a general nature, not conveniently fitting into other technical sections. Included are the following topics:

PART 1 - GENERAL
- Project Overview
- Scope
- Related Work
- Reference Standards
- Regulatory Requirements
- Quality Assurance
- Continuity of Existing Services and Systems
- Approved Electrical Testing Laboratories
- Sealing and Fire Stopping
- Equipment Furnished by Others
- Provisions for Future Work
- Intent
- Submittals
- Project/Site Conditions
- Work Sequence and Scheduling
- Work by Other Trades
- Salvage Materials
- Operating and Maintenance Data
- Record Drawings

PART 2 – PRODUCTS
- Material

PART 3 - EXECUTION
- Building Access
- Equipment Access
- Coordination
- Sealing and Fire Stopping
- Housekeeping and Clean Up
- Agency Training

RELATED WORK

Reference

Applicable provisions of Division 1 govern work under this Section.

REFERENCE STANDARDS, CODES, AND GUIDANCE

Facilities are Military projects, and as such all design and construction accomplished pursuant to this contract must comply with the latest edition of the following UFC Facility guides and DoD regulations, manuals, and pamphlets; (latest editions shall be used), including but not limited to the following:

Government standards listed take precedence over industry standards. The most recent UFC Standards must be used, currently they are:

UFC 1-200-01 - DoD Building Code.
UFC 3-600-01 - Fire Protection Engineering for Facilities, with Change 6
UFC 4-010-01 - DoD Minimum Antiterrorism Standards for Buildings, with Change 2
UFC 3-101-01 – Architecture, with Change 1
UFC 3-501-01 –Electrical Engineering, with Change 1.
UFC 3-301-01 – Structural Engineering, with Change 1.
UFC 3-401-01 Mechanical Engineering, with Change 1.

All applicable Federal, State and Local Environmental Regulations

Applicable provisions in the U.S. Architectural & Transportation Barriers Compliance Board's Architectural Barriers Act (ABA) “Accessibility Guidelines for Buildings and Facilities".

Abbreviations of standards organizations referenced in this, and other sections are as follows:

ADEM Alabama Department of Environmental Management
ALDOT Alabama Department of Transportation
ANSI American National Standards Institute
ASTM American Society for Testing and Materials
AWWA American Water Works Association
EPA Environmental Protection Agency
ETL Electrical Testing Laboratories, Inc.
IAPMO International Association of Plumbing & Mechanical Officials
IEEE Institute of Electrical and Electronics Engineers
IES Illuminating Engineering Society
IFC International Fire Code
IMC International Mechanical Code
IPC International Plumbing Code
ISA Instrument Society of America
NBS National Bureau of Standards
NEC National Electric Code
NEMA National Electrical Manufacturers Association
NESC National Electrical Safety Code
NFPA National Fire Protection Association
NRTL Nationally Recognized Testing Laboratory
OSHA Occupational Safety and Health Association

UL Underwriters Laboratories Inc.

REGULATORY REQUIREMENTS
All work and materials are to conform in every detail to applicable Codes, Standards, and Guidance.

QUALITY ASSURANCE
Where equipment or accessories are used which differ in arrangement, configuration, dimensions, ratings, or engineering parameters from those indicated on the contract documents, the contractor is responsible for all costs involved in integrating the equipment or accessories into the system and the assigned space, and for obtaining the performance from the system into which these items are placed.

Manufacturer references used herein are intended to establish a level of quality and performance requirements unless more explicit restrictions are stated to apply.

CONTINUITY OF EXISTING SERVICES
No outages shall be permitted on existing systems except at the time and during the interval specified by the Government Project Manager. When interruption is required, coordinate scheduling of down-time to minimize disruption to activities. Unless specifically stated, all work involved in interrupting or changing existing services is to be done during normal working hours. No extra costs will be paid to the Contractor for such outages which must occur outside of regular weekly working hours.

This Contractor shall restore any circuit interrupted as a result of this work to proper operation as soon as possible.

APPROVED ELECTRICAL TESTING LABORATORIES
The following laboratories are approved for providing electrical product safety testing, listing, and labeling services as required in these specifications:

A Nationally Recognized Testing Laboratory (NRTL) as identified by the United States Occupational Safety and Health Administration (OSHA), per the OSHA Nationally Recognized Testing Laboratory Program.

SEALING AND FIRE STOPPING
Sealing and fire stopping of sleeves/openings between conduits, cable trays, wireways, troughs, cable bus, bus duct, etc. and the sleeve, structural or partition opening shall be the responsibility of the contractor whose work penetrates the opening. Provide all fire stopping of fire rated penetrations and sealing of smoke rated penetrations.

EQUIPMENT FURNISHED BY OTHERS

This article is intended to alert the Contractor that on some individual TO’s the Government might furnish equipment that will have to be received, stored, installed, and/or which will need final connections for the completed project. In some cases, it may be appropriate to refer to other sections for a more complete description of the equipment being furnished or the work involved in installation.

PROVISIONS FOR FUTURE
Some individual TO's might require systems or subsystems be sized for future expansion and what the Contractor must do to maintain these provisions.

INTENT
The Contractor shall furnish and install all the necessary materials, apparatus, and devices to complete the electrical equipment and systems installation herein specified, except such parts as are specifically exempted herein.

If an item is either called for in the specifications or shown on the plans, it shall be considered sufficient for the inclusion of said item in this contract. If a conflict exists within the Specifications or exists within the Drawings, the Contractor shall furnish the item, system, or workmanship, which is the highest quality, largest, or most closely fits the Governments intent (as determined by the Government Project Manager). Refer to the General Conditions of the Contract for further clarification.

It must be understood that the details and drawings are diagrammatic. The Contractor shall verify all dimensions at the site and be responsible for their accuracy.

Materials and labor shall be new (unless noted or stated otherwise), first class, and workmanlike.

Whenever a particular manufacturer's product is named, it is intended to establish a level of quality and performance requirements unless more explicit restrictions are stated to apply.

SUBMITTALS
Refer to Division 1, General Conditions, Submittals.

Shop drawing submittals are to be bound, labeled, contain the project manual cover page and a material index list page showing item designation, manufacturer and additional items supplied with the installation. Submit for all equipment and systems as indicated in the respective specification sections, marking each submittal with that specification section number. Mark general catalog sheets and drawings to indicate specific items being submitted and proper identification of equipment by name and/or number, as indicated in the contract documents. Include wiring diagrams of electrically powered equipment.

Submit sufficient quantities of data sheets and shop drawings to allow the following distribution:

- Operating and Maintenance Manuals 2 copies
- Architect/Engineer 1 copy

PROJECT/SITE CONDITIONS

Install Work in locations shown on drawings, unless prevented by project conditions.

Prepare drawings showing proposed rearrangement of work to meet project conditions, including changes to work specified in other sections. Obtain permission of CO before proceeding.

Tools, materials, and equipment shall be confined to areas designated by the Government Project Manager.

WORK SEQUENCE AND SCHEDULING
If required install work in phases to accommodate occupancy requirements. During the construction period coordinate electrical schedule and operations with Government Project Manager.

WORK BY OTHER TRADES
Every attempt has been made to indicate in this trade's specifications and drawings all work required of this Contractor. However, there may be additional specific paragraphs in other trade specifications and addenda, and additional notes on drawings for other trades which pertain to this trade's work, and thus those additional requirements are hereby made a part of these specifications and drawings.

Details on drawings for equipment to be provided by others are based on preliminary design data only. This Contractor shall lay out the work and shall be responsible for its correctness to match equipment actually provided by others.

SALVAGE MATERIALS
No materials removed from this project shall be reused unless specifically noted otherwise. All materials removed shall become the property of and shall be disposed of by the Contractor.

OPERATION AND MAINTENANCE DATA
All operations and maintenance data shall comply with the submission and content requirements specified under section GENERAL REQUIREMENTS.

In addition to the general content specified under GENERAL REQUIREMENTS supply the following additional documentation:

1. Records of tests performed to certify compliance with system requirements.
2. Manufacturer’s wiring diagrams for electrically powered equipment.
3. Parts list for installed material, equipment, and fixtures.
4. Manufacturers installation, operation and maintenance recommendations for fixtures, equipment, and specialties.
5. Additional information as indicated in the TO.
6. All required passwords required to gain local access to equipment and controllers.

RECORD DRAWINGS
The Contractor shall maintain at least one copy each of the specifications and drawings on the job site at all times.

The Contractor will keep a daily record of changes and deviations from the drawings. Dimensions and elevations on the record drawings shall locate all buried or concealed piping, conduit, or similar items.

The daily record of changes shall be the responsibility of Contractor's field superintendent. No arbitrary mark-ups will be permitted.

At completion of the project, the Contractor shall submit the marked-up record drawings to the Government Project Manager.

PART 2 - PRODUCTS

All materials shall be listed by and shall bear the label of an approved Nationally Recognized Testing Laboratory (NRTL) as identified by the United States Occupational Safety and Health Administration (OSHA), per the OSHA Nationally Recognized Testing Laboratory Program. If none of the approved electrical testing laboratories has published standards for a particular item, then other national independent testing standards, if available, shall apply and such items shall bear those labels. Where one of the approved electrical testing laboratories has an applicable system listing and label, the entire system, shall be so labeled.

PART 3 - EXECUTION

BUILDING ACCESS

Arrange for the necessary openings in the building to allow for admittance of all apparatus. When the building access was not previously arranged and must be provided by this contractor, restore any opening to its original condition after the apparatus has been brought into the building.

EQUIPMENT ACCESS

Install all piping, conduit, ductwork, and accessories to permit access to equipment for maintenance. Coordinate the exact location of wall and ceiling access panels and doors with the General Contractor, making sure that access is available for all equipment and specialties.

COORDINATION

The Contractor shall cooperate with other trades in locating work in a proper manner. Should it be necessary to raise or lower or move longitudinally any part of the electrical work to better fit the general installation, such work shall be done at no extra cost, provided such decision is reached prior to actual installation. The Contractor shall check location of electrical outlets with respect to other installations before installing.

The Contractor shall verify that all devices are compatible for the surfaces on which they will be used. This includes, but is not limited to light fixtures, panelboards, devices, etc. and recessed or semi-recessed heating units installed in/on architectural surfaces.

Coordinate all work with other contractors prior to installation. Any installed work that is not coordinated and that interferes with other contractor's work shall be removed or relocated at the installing contractor's expense.

Coordinate all equipment requirements with the various contractors and the Government Project Manager. Review the complete set of drawings and specifications to determine the extent of wiring, starters, devices, etc., required. Coordinate the available fault current-

equipment including control panels and internal components shall be rated to interrupt the available fault current.

SEALING AND FIRE STOPPING

FIRE AND/OR SMOKE RATED PENETRATIONS:
Provide all fire stopping of fire rated penetrations and sealing of smoke rated penetrations.

NON-RATED PENETRATIONS:

In exterior wall openings below grade, assemble rubber links of mechanical seal to the proper size for the item in accordance with the manufacturer's instructions. Install so that the bolts used to tighten the seal are accessible from the interior of the building or vault.

At all interior and exterior walls, through-wall conduit penetrations are required to be sealed. Apply sealant to both sides of the penetration in such a manner that the annular space between the sleeve or cored opening and the conduit is completely blocked.

PENETRATIONS SUBJECT TO WATER INTRUSION:
For penetrations (both rated and non-rated) in floors subject to water intrusion or in rooms housing electrical equipment (but not within walls) provide one of the following:

- Penetration where steel pipe sleeve is used extend steel sleeve 2” above the floor.
- Penetration where cast in place fire stopping device/sleeve is used, extend device/sleeve 2” above the floor (provided it meets the device’s UL listing).
- Penetration where there is no steel sleeve or cast in place fire stopping device/sleeve, provide 2”x 2” x 1/8” galvanized steel angles fastened to floor surrounding the penetration or group of penetrations to prevent water from getting to penetration. Provide urethane caulk between angles and floor and fasten angles to floor minimum 8” on center. Seal corners watertight with urethane caulk.

Floors subject to water intrusion or rooms housing electrical equipment include the following locations:

- Food Service/Kitchen Areas
- Walk In Coolers/Freezers
- Laundries
- Restrooms
- Locker/Shower Rooms
- Janitor Rooms w/ Sinks
- Wet Laboratories
- Mechanical/Plumbing Equipment Rooms
- Swimming Pool Rooms/Pool Equipment Rooms
- Chemical/Hazardous Waste Storage
- Maintenance/Industrial Shops
- Vehicle Storage and Parking Ramps
- Greenhouses
- Data/Telecommunications Rooms
- Electrical Equipment Rooms

Provide waterproof caulk sealant top coating on fire stopping system (or other approved means to protect the fire stopping system from water) in areas subject to wash down such as Food Service and Dish Washing Areas.

HOUSEKEEPING AND CLEAN UP

The Contractor shall clean up and remove from the premises, on a daily basis, all debris and rubbish resulting from its work and shall repair all damage to new and existing equipment resulting from its work. When job is complete, this Contractor shall remove all tools, excess material, and equipment, etc., from the site.

AGENCY TRAINING

Contractor to provide factory authorized representative and/or field personnel knowledgeable with the operations, maintenance and troubleshooting of the system and/or components defined within this section for the training sessions.

END OF SECTION