DEPARTMENT OF HOMELAND SECURITY
UNITED STATES COAST GUARD
SHORE INFRASTRUCTURE LOGISTICS CENTER

SPECIFICATIONS FOR

Repair Electrical Equipment (Building N11)

PN: 8405333

AT

USCG BASE KODIAK
KODIAK, ALASKA

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SECTION 01 11 00

SUMMARY OF WORK
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PART 1 GENERAL

1.1 CONTRACTING OFFICER'S AUTHORITY

In no event shall any understanding or agreement between the Contractor and any Government employee other than the Contracting Officer on any Contract, modification, change order, letter or verbal direction to the Contractor be effective or binding upon the Government. All such actions must be formalized by a proper contractual document executed by an appointed Contracting Officer. In the event a Government representative other than the Contracting Officer directs a change in the Work to be performed, or increases the Scope of the Work to be performed, it is the Contractor's responsibility to make inquiry to the Contracting Officer before making the deviation. Payments will not be made without being authorized by an appointed Contracting Officer with the legal authority to bind the Government.

The Contracting Officer may designate in writing a Contracting Officer's Representative (COR) to act on the Contracting Officer's behalf in certain technical areas. A copy of such designation will be provided to the Contractor.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

1.2.1 Project Description

The Work includes the following items and incidental related Work.

1. Attend a verification preconstruction site visit: verify control wiring and functionality, meet with operators, develop phasing plan based on expected fuel deliveries.
2. Provide fiberglass enclosure for new/relocated control, electrical, alarm, and leak detection equipment, and install adjacent to Building N11 as described in the drawings.
3. Relocate necessary control and other related equipment to new fiberglass enclosure.
4. Provide heat detection in existing Building N11 and new control enclosure with alarm signal transmission to central receiving stations.
5. Provide a standalone electrical panel for control panel power, Building N11 and site lighting, fuel separator immersion heaters, fuel separator heat trace, and fiberglass enclosure heating.
6. Existing equipment at current outdoor location will be modified as necessary to accommodate the relocation of these systems to the new equipment enclosure. Some of these enclosures will remain as termination points for new power/control cables.
7. Mount a manual alarm pull station at the exterior of the new enclosure.
8. Relocate generator power inlet to location more accessible by roll up generator and install new power inlet to replace existing. Existing electrical meter and manual transfer switch to remain as is otherwise.
9. Demo unused OWS drain piping in Building N11. Plug drain with concrete and cap cut piping at wall.

1.2.2 Location

The Work is located at U.S. Coast Guard Base Kodiak. The exact location will be shown by the Contracting Officer.

1.2.3 Applicable Codes and Regulations

The following provides a general summary of the codes and regulations applicable to this Project, but is not intended to be a comprehensive list of all applicable codes, standards, and regulatory requirements this Project shall comply with. Refer to the Reference article of each section included in these Specifications and comply with **ALL** requirements specified. Unless specifically noted otherwise or directed otherwise by the Contracting Officer, use the most recent version of each code listed below:

a. International Building Code (ICC IBC)

b. ASCE 7-16

c. International Mechanical Code (ICC IMC)

d. International Plumbing Code (ICC IPC)

e. National Electrical Code (NFPA 70)

h. OSHA Occupational Safety and Health Standards (29 CFR 1910)

i. OSHA Safety and Health Regulations for Construction (29 CFR 1926)

j. National Fire Code (NFPA 1)

k. National Life Safety Code (NFPA 101)

l. International Fuel Gas Code (ICC IFGC)

m. Accessible and Usable Buildings and Facilities (ICC/ANSI A117.1)

In addition, comply with all local amendments to the above listed codes as well as all local building and construction codes and standards including, but not limited to:U.S. Coast Guard Base Kodiak Standard Construction Specifications (BASE KODIAK SCS); City of Kodiak Standard Construction Specifications & Standard Details - 2012 Edition (KODIAK SCSSD); and City of Kodiak City Code Title 14 - Buildings and Construction (KODIAK CC TITLE 14).

1.3 REFERENCES

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

FEDERAL ACQUISITION REGULATIONS (FAR)

FAR 52.236-7	Permits and Responsibilities
FAR 52.236-9	Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements
FAR 52.236-21	Specifications and Drawings for Construction

AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE)

ASCE 7-16	(2017; Errata 2018; Supp 1 2018) Minimum Design Loads and Associated Criteria for Buildings and Other Structures

CITY OF KODIAK (KODIAK)

KODIAK SCSSD	City of Kodiak Standard Construction Specifications & Standard Details - 2012 Edition
KODIAK CC TITLE 14	City of Kodiak City Code Title 14 - Buildings and Construction

FEDERAL ACQUISITION REGULATIONS (FAR)

INTERNATIONAL CODE COUNCIL (ICC)

ICC IBC	(2018) International Building Code
ICC IFGC	(2018) International Fuel Gas Code
ICC IMC	(2018) International Mechanical Code
ICC IPC	(2018) International Plumbing Code
ICC/ANSI A117.1	(2009) Accessible and Usable Buildings and Facilities

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 1	(2018) Fire Code
NFPA 70	(2017; ERTA 1-2 2017; TIA 17-1; TIA 17-2; TIA 17-3; TIA 17-4; TIA 17-5; TIA 17-6; TIA 17-7; TIA 17-8; TIA 17-9; TIA 17-10; TIA 17-11; TIA 17-12; TIA 17-13; TIA 17-14; TIA 17-15; TIA 17-16; TIA 17-17) National Electrical Code
NFPA 101	(2018; TIA 18-1; TIA 18-2; TIA 18-3) Life Safety Code

U.S. COAST GUARD BASE KODIAK (BASE KODIAK)

BASE KODIAK SCS	U.S. Coast Guard Base Kodiak Standard Construction Specifications

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

29 CFR 1910	Occupational Safety and Health Standards
29 CFR 1926	Safety and Health Regulations for Construction

1.4 DEFINITIONS AND ABBREVIATIONS APPLICABLE TO SPECIFICATIONS

Definitions specific to certain sections are further defined in their respective sections. Unless specifically noted otherwise or defined by a different Specification Section, the following words and abbreviations have the general meaning defined below for the technical portions of the Work:

Architect-Engineering (A/E and AE) Firm: The firm responsible for preparing Construction Contract documents (drawings and technical specifications) and serving as the Designer of Record (DOR).

As-Built Drawings: As-Built Drawings are developed and maintained by the Contractor and depict actual conditions, including deviations from the Contract Documents. These deviations and additions may result from coordination required by, but not limited to: Contract modifications; official responses to Contractor submitted Requests for Information; direction from the Contracting Officer; designs which are the responsibility of the Contractor, and differing Site conditions. Maintain the as-builts throughout construction as red-lined hard copies on-site and red-lined PDF files. These files serve as the basis for the creation of the Record Drawings.

Base Kodiak Facilities Engineer (FE): The local Installation personnel responsible for management of Systems. In some cases, the Contracting Officer may designate a FE to review, oversee, approve certain aspects of the Work such as Operation and Maintenance manuals and Training.

Civil Engineering Unit (CEU): The U.S. Coast Guard Civil Engineering Unit detachment. For U.S. Coast Guard District 17 projects, assume this is CEU Juneau.

Contract: The term "Contract" refers to the binding agreement between the Government and the Contractor and all associated and referenced documents including but not limited to Task Orders, Drawings, Specifications, Amendments, Modifications, and Addenda.

Contracting Officer (KO): The Government official having overall authority for administrative contracting actions. Certain contracting actions may be delegated to the Contracting Officer's Representative (COR).

Contractor (KR): The primary firm or group responsible for execution of the Work.

Contractor's Quality Control (QC) Manager: An individual retained by the Prime Contractor and qualified in accordance with the Section 01 45 00 QUALITY CONTROL having the overall responsibility for the Contractor's QC organization.

Day(s): Calendar day(s), unless otherwise indicated.

Designer of Record (DOR): A registered design professional employed by the Government responsible for the overall design and review of submittal documents prepared by others. The DOR is registered or licensed to practice their respective design profession as defined by the statutory requirements of the professional registration laws in state in which the design professional works. The DOR is also referred to as the Engineer of Record (EOR) in design code documents.

FDCC: The U.S. Coast Guard Facilities Design & Construction Center. For U.S. Coast Guard District 17 projects, assume this is FDCC Seattle.

Foreign object debris (FOD): An object, live or not, located in an inappropriate location which has the capacity to cause injury or damage equipment or assets. Control of FOD is of particular importance for Work that occurs on or near airfields and in proximity to aircraft.

Furnish: To supply and deliver to the Site, to unload and unpack ready for assembly, installation, testing, and start-up.

Government: The agency (and their Facility Partners) serving in capacity as the Owner or Client. For U.S. Coast Guard projects, assume the term "Government" indicates U.S. Coast Guard (USCG).

Government Contracting Officer's Representative (COR): A representative appointed by the Contracting Officer to oversee specific aspects of the Contract and Work.

Government Construction Project Manager (CPM or CI): In some cases the Government may appoint a separate person (other than the COR) to oversee the Work.

Indicated: Used to direct the Contractor to information contained on the Drawings or in the Specifications. Terms such as "shown," "noted," "scheduled," "specified," and "defined" also may be used to assist in locating information but no limitation of location is implied or intended.

Install: Defines operations at the Site including assembly, erection, placing, anchoring, applying, shaping to dimension, finishing, curing, protecting, and cleaning, ready for the U.S. Coast Guard use.

Installation: When used to indicate a location, the term "Installation" is defined as the site owned or operated by the U.S. Coast Guard where the Project Work will occur. As used by these Project Specifications, "Installation" refers to U.S. Coast Guard Base Kodiak.

Installer: Defines a person or firm engaged by the Contractor or any subcontractor to execute a specific portion of the Work.

Personal Protective Equipment (PPE): Refers to protective clothing, helmets, goggles or other garments and equipment designed to protect the wearer from injury.

Project: The Contracted Work to be performed.

Provide: To furnish and install, ready for intended use.

Quality Assurance (QA): The systems and methods employed by the Government as required to ensure the Work is executed per the Contract and applicable standards.

Quality Control (QC): The systems and methods employed by the Contractor as required to ensure the Work is executed per the Contract and applicable standards.

Record Drawings: The Record Drawings are the final compilation of actual conditions reflected in the As-Built Drawings.

Request for Information (RFI): Request provided by the Contractor to the Government to clarify requirements of the Contract documents.

Subcontractor: Defines a person or firm engaged by the prime Contractor or any of their subcontractors.

United States Coast Guard (USCG): The U.S. Coast Guard, this term is used interchangeably with "Government" in these Specifications.

Work: The term "Work" refers to all aspects of the Project.

1.5 CONFLICTS

In the event of a conflict or inconsistency between any of the requirements within the Contract, precedence is applied:

a. Any portions of the accepted proposal which both conform to and exceed the requirements of the solicitation.

b. The provisions of the solicitation.

c. All other provisions of the accepted proposal.

d. Any design products including, but not limited to, Plans, Specifications, Engineering Studies and Analyses, Shop Drawings, and Equipment Installation Drawings. These are "deliverables" under the Contract are not part of the Contract itself. Design products must conform to all provisions of the Contract, in the order of precedence.

Where Specifications or standards documents are referenced in these Contract documents, they apply as if they were incorporated into the Contract, except if specifically noted otherwise. If there are differences between referenced documents and any Contract documents see FAR 52.236-21 and notify the Contracting Officer of any discrepancies.

When a number is suffixed to a referenced Federal or Military Specification or standard, it denotes the effective amendment(s) or change to the document.

1.6 GENERAL WORKING CONDITIONS

Working conditions for this Work are based on typical weather information and established engineering data as follows; the Contractor shall verify actual conditions based on established databases (e.g., ASCE 7-16,

National Weather Service, NOAA, etc.). The following information is intended to provide a Project baseline for preliminary scheduling and design considerations. The following information should **NOT** be used for final design or materials/installation requirements. The following also includes weather data reflecting established normals, the weather data listed below is not intended reflect record extremes (e.g., record high/low temperatures). Contractor shall verify actual conditions and refer to the Technical Specifications for design and materials/installation requirements.

1.6.1 Wind

1.6.1.1 Prevailing Wind

Prevailing wind information is based on data as published by Iowa State University's Iowa Environmental Mesonet at https://mesonet.agron.iastate.edu/sites/locate.php?network=AK_ASOS, select a station and then select the "Wind Rose" tab.

Northwest at 9.5 knots (11 MPH)

1.6.1.2 Design Wind Speed

Design wind speed shall be per ASCE 7-16.

a. Risk Category II: 165 MPH

b. Risk Category III: 175 MPH

c. Risk Category IV: 180 MPH

1.6.2 Temperature and Precipitation

Temperature and precipitation data is based on 1981-2010 Normals (latest available three-decade averages) as published by NOAA National Climate Data Center (NCDC): https://www.ncdc.noaa.gov/cdo-web/datatools/normals. The values indicated are the average of all available stations' reported data in the general vicinity of the Project Site.

1.6.2.1 Temperature

a. Maximum Temperature: 61.2 Degrees F

b. Minimum Temperature: 26.4 Degrees F

c. January Average Mean Temperature: 30.8 Degrees F

d. July Average Mean Temperature: 54.5 Degrees F

1.6.2.2 Precipitation

1.6.2.2.1 Annual Precipitation

a. Average Annual Precipitation: 78.04 Inches

b. Maximum Annual Precipitation: 106.25 Inches

1.6.2.2.2 60 Minute Duration Rainfall Rates

a. 25 Year Normal: .69 Inch/Hour

b. 100 Year Normal: .87 Inch/Hour

1.6.3 Snow and Frost Data

1.6.3.1 Snow Loads

Snow loads indicated are based on ICC IBC, ASCE 7-16, and data available from the City of Kodiak (see KODIAK CC TITLE 14).

a. Ground Snow Load: 40 PSF

b. Roof Snow Load: Roof snow loads shall be calculated per ICC IBC and ASCE 7-16, also refer to KODIAK CC TITLE 14 for additional requirements.

1.6.3.2 Frost Protection

General frost protection information is provided below for water lines and is based on the minimum requirements of local building codes and city standards. **ALWAYS** verify required coverage for all items. The following is not intended to provide general coverage requirements for building structures (e.g., footings and foundations). Coverage requirements may also vary depending on the the type of utility and service.

Frost Protection: 6 FT Cover minimum, also refer to KODIAK SCSSD and KODIAK CC TITLE 14 for additional requirements.

1.6.4 Seismic Design Criteria

Seismic Design Criteria shall be per ASCE 7-16. Seismic Site Class and Soil Classification must be determined and confirmed by a Geotechnical Engineer prior to design. The following information provides the Seismic Design Category values based on ASCE 7-16. The following values should be verified and then used to help determine the Seismic Site Class and Soil Classification which establish minimum Project requirements.

a. S_S: 1.500

b. S_1: 0.904

1.7 SITE VISITS

If a formal Site visit is planned, it will be listed in the Task Announcement. Prebid/informal site visits are optional, at the Contracting Officer's discretion, and the Contractor shall be responsible for all expenses.

1.8 OCCUPANCY OF PREMISES

See section 01 14 00 WORK RESTRICTIONS for Work requirements in occupied facilities.

1.9 EXISTING WORK

In addition to FAR 52.236-9 Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements:

a. Remove or alter existing Work in such a manner as to prevent injury or damage to any portions of the existing Work which remain.

b. Repair or replace portions of existing Work which have been altered during construction operations to match existing or adjoining Work, as approved by the Contracting Officer. At the completion of operations, existing Work must be in a condition equal to or better than that which existed before new Work started.

1.10 PERMITS

Contractor's responsibility for permits is discussed in FAR 52.236-7 Permits and Responsibilities. In addition, the Contractor shall pay for and obtain all temporary permits for construction of this Contract Work. The Contractor shall comply with all terms and conditions of permits, whether the Contractor or the Government obtains the permit.

1.11 LOCATION OF UTILITIES

Locations of existing utilities indicated on site surveys, utility maps, and other Drawings are approximate only. The Government is not responsible for he accuracy of the information provided.

Contractor shall be responsible for locating and marking **ALL** utilities within the limits of construction and shall comply with State and local requirements for locating and marking underground utilities.

Contractor shall field verify accuracy of all existing utility locations whether shown or not on the Contract Drawings, within the Area of Work.

Contractor shall contact commercial utility companies direcly and the Contracting Officer to obtain all utility information (e.g., seam, potable water, deluge, sanitary sewer, power, telephone, cable TV, etc.).

The Contractor shall scan the construction site with Ground Penetrating Radar (GPR), electromagnetic, or sonic equipment, and mark the surface of the ground or paved surface where existing underground utilities are discovered. Verify the elevations of existing piping, utilities,and any type of underground or encased obstruction not indicated, or specified to be removed, that is indicated or discovered during scanning, in locations to be traversed by piping, ducts, and other Work to be conducted or installed.

Contact local utility locating service to mark utilities or use a private utility locator service, at Contractor expense, to locate underground utilities. Identify and mark all utilities.

Contractor shall obtain approval of all necessary permits with utility companies, U.S. Coast Guard, and any other regulatory agencies prior to excavating. See Sections 01 14 00 WORK RESTRICTIONS and 01 57 19 Temporary Environmental Controls for additional regulatory requirements related to excavation and digging.

Contractor shall also mark-up Contract Drawings to identify significant corrections and discovery of unknown utilities.

PART 2 PRODUCTS

2.1 GENERAL

All products incorporated into this Work shall be brand new unless specifically indicated otherwise in the Project Drawings or the following technical Specification sections. The Contracting Officer shall have the authority to reject any defective or non-complying products.

Where not specifically indicated, the Contractor is responsible for determining or estimating the types, sizes, and quantities of products needed to complete all Work required in the Project Drawings and Specifications.

2.2 MANUFACTURER'S INSTRUCTIONS

Particular items and products specified in the sections are to be provided and/or installed according to the manufacturer's printed instructions. For bidding and Contract performance purposes, the Contractor is deemed to be aware of the requirements of these instructions.

2.3 COMMERCIAL AND LOCALLY AVAILABLE PRODUCTS

To facilitate economic life-cycle maintenance by the Government, products supplied for the Contract shall be commercially available products; available through normal Alaska based suppliers or distributers.

2.4 INSTALLATION PRIOR TO APPROVAL

Where the Specifications require product submittals, the installation of products prior to submittal approval by the Contracting Officer shall be sufficient justification for removal of the products as directed by the Contracting Officer.

PART 3 EXECUTION

Not used.

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SECTION 01 14 00

WORK RESTRICTIONS
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PART 1 GENERAL

1.1 WORK COVERED

This section lists the minimum constraints and phasing requirements you must incorporate into your schedule and Work activities. Standard constraints and phasing requirements to incorporate into the schedule and Work activities are described below. Additional provisions may be specified in other sections of the Contract.

1.2 REFERENCES

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

FEDERAL ACQUISITION REGULATIONS (FAR)

FAR 52.204-2	Security Requirements
FAR 52.223-3	Hazardous Material Identification and Material Safety Data
FAR 52.236-6	Superintendence by the Contractor
FAR 52.249-10	Default (Fixed-Price Construction)

1.3 SUBMITTALS

Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

List of Contract Personnel

Vehicle List

Notices To Contracting Officer

1.3.1 Submittal Transmittals

In accordance with Section 01 33 00 SUBMITTAL PROCEDURES, all submittals require a submittal transmittal form and all submittal transmittal forms must be signed by an authorized official of the Contractor, indicating that the Contractor has reviewed the submittal for conformance with all requirements of the Contract documents, in order to be accepted.

1.4 SPECIAL SCHEDULING REQUIREMENTS

a. The capability to transfer fuel from N11 and its related controls will

remain in operation during the entire construction period, with the exception of a brief cutover from the old power and controls to the new. The Contractor must conduct his operations so as to cause the least possible interference with normal fuel transfer operations.

b. Coordinate the cutover scheduleing to avoid conflicts with any planned fuel transfer activities.

1.4.1 Notices to Contracting Officer

Unless otherwise indicated in other sections, notify the Contracting Officer of the actions as listed below. This list is intended to cover the most common requirements for notifications, but all notifications are not limited to these items.

Mobilization: Provide written notice to the Contracting Officer that you intend to mobilize to the Site 14calendar days prior to mobilization.

Start of Work: The Contractor shall provide the Contracting Officer with a minimum 7 calendar days advance written notice prior to the start of Work at the Project Site. This includes recommencement of Work.

Utility Outages and Shutdowns: Request utility outages and shutdowns in accordance with Section 01 50 00 TEMPORARY CONSTRUCTION FACILITIES AND CONTROLS. The Contractor shall be required to coordinate outages at the convenience of the Government. Outages will be approved by the Contracting Officer.

Stop Work: Provide formal written notice to the Contracting Officer at least 24 hoursin advance of any planned or intended Work stoppage, shutdowns, demobilization, or delays in the progress schedule from either the Contractor's workforce or any subcontractor.

Subcontractor Arrival: Notify the Contracting Officer at least 24 hours in advance of the arrival of subcontractor(s) to the Project Site.

Delivery of Materials: Notify the Contracting Officer at least 24 hours in advance of the arrival of materials to the Project Site that will require expedient inspection and acceptance by the Government prior to their incorporation into the Work.

Inspection and Testing: Unless specified otherwise, notify the Contracting Officer at least 72 hours in advance of the requirement for inspection of a critical job element and/or performance of formal testing as required herein. Refer to Section 01 45 00 QUALITY CONTROL for the requirements pertaining to inspections and testing.

Superintendence: In accordance with Section 01 30 00 ADMINISTRATIVE REQUIREMENTS and as required by FAR 52.236-6, the Contractor is required to appoint a superintendent for this Work that will be responsible for the on-site supervision and management of the Contractor's workforce on a daily basis. The superintendent shall be physically present at the Project Site for the duration of Work, and

readily accessible by the Contracting Officer. If the superintendent will be absent from the Project Site for more than 5 consecutive working days, the Contractor shall appoint another superintendent. Changes in superintendent will only be accepted by written notification to the Contracting Officer.

Training: Request training of systems 15 calendar days prior to entire Project completion and after all punch list items have been completed. Training shall be conducted after final O&M manuals are received in accordance with Section 01 78 23 OPERATION AND MAINTENANCE MANUALS to be included in the training.All training must be videotaped.

Completion: Provide written notice of completion to the Contracting Officer 30 calendar days prior to completion of the each facility. Completion shall include completion of all testing and commissioning and all interior components of the facility including approved O&M manuals.

1.4.2 Preliminary Work

In order to accomplish the Work with the minimum impact to U.S. Coast Guard operations, preliminary Work as follows must be completed prior to any demolition and/or construction of the new structures and supporting facilities.

a. Submit a Construction Phasing Plan 14 work days prior to the Pre-construction meeting to show understanding of the constraints outlined in this Section.

b. Provide a video survey of the entire Project Site documenting existing conditions prior to the start of any on-site Work, other than design activities. Submit 1 copy to the Contracting Officer.

c. Furnish & Install Construction Trailer and all supporting equipment and utilities, prior to any other Work on-site. Reference Section 01 50 00 Temporary Construction Facilities and Controls for trailer details.

d. Provide written notice to the Contracting Officer of mobilization to each space 14 days prior to the start of mobilization.

1.5 WEATHER

See section 01 11 00 SUMMARY OF WORK for General Working Conditions. The information provided is based on established data and establishes a basic understanding of the typical climatic conditions the Contractor should expect at the Project Site. Verify data provided and coordinate with the Contracting Officer to establish a Project baseline for scheduling purposes.

1.5.1 Unfavorable Weather

Delays caused by unusually severe weather (FAR 52.249-10). Unusually severe weather will be considered unforeseeable and unusually severe if it is more severe than the statistical average for the appropriate weather parameters established by the National Weather Service.

During unfavorable weather, the Contractor shall proceed with only those portions of the Work that may be undertaken safely and without adversely affecting quality. The Contracting Officer shall have the authority for determining which Work will be adversely affected by unfavorable weather.

Should warnings of severe weather be issued, the Contractor shall take every practical precaution to minimize danger to persons, the Work, and to adjacent property. Precautions shall include, but not limited to, closing all openings, removing all loose material, tools and equipment from exposed locations, and removing or securing scaffolding and other temporary Work.

If any part of this Project is pursued during periods of cold or inclement weather, the Contractor shall take all appropriate precautions to protect facilities and Work involved in the Project Scope of Work from damage by cold/or inclement weather. The Contractor shall be responsible for snow removal around Project Site, parking areas, and thoroughfares.

1.6 CONTRACTOR ACCESS AND USE OF PREMISES

1.6.1 Quarters and Messing

Government quarters including messing facilities are not available for use under this Contract. Station regulations regarding transient behavior shall be strictly adhered to.

1.6.2 U.S. Coast Guard Installation Regulations

Ensure that Contractor personnel employed for the Work become familiar with and obey U.S. Coast Guard Installation regulations including safety, fire, traffic and security regulations. Keep within the limits of the Work and avenues of ingress and egress. Wear appropriate personal protective equipment (PPE) in designated areas. Do not enter any restricted areas unless required to do so and until cleared for such entry. Mark Contractor equipment for identification.

1.6.2.1 List of Contract Personnel

14 days prior to the commencement of Work, submit to the Contracting Officer a complete List of Contract Personnel of the Contractor and subcontractors including names, ages, addresses, telephone numbers for use in the event of an emergency, driver's license/identification card numbers, and expected on-site duration.

As changes occur and additional information becomes available, correct and change the information contained in previous lists. For any additional personnel identified throughout the performance of this Project, submit the above information a minimum of 7 days prior to the personnel arriving.

1.6.2.2 Emergency Contacts

Maintain an after-working hours contact point, and provide the Contracting Officer with a telephone number, so that the Government may contact the Contractor at any time in case of emergency.

1.6.2.3 No Smoking Policy

Smoking is prohibited within and outside of all buildings on installation, except in designated smoking areas. This applies to

existing buildings, buildings under construction and buildings under renovation. Discarding tobacco materials other than into designated tobacco receptacles is considered littering and is subject to fines. The Contracting Officer will identify designated smoking areas.

1.6.3 Working Hours

Regular working hours must consist of an 8 1/2 hour period , between 7 a.m. and 5 p.m., Monday through Friday , excluding Government holidays.

No Work requiring Government coordination (including but not limited to moving vehicles, aircraft, or other equipment) or inspection Work is allowed on weekends or Federal holidays.

1.6.4 Work Outside Regular Hours

Work outside regular working hours including Work to support outages, requires Contracting Officer approval. Make application 5 calendar days prior to such Work to allow arrangements to be made by the Government for inspecting the Work in progress, giving the specific dates, hours, location, type of Work to be performed, Contract Number and Project Site. Based on the justification provided, the Contracting Officer may approve Work outside regular hours. During periods of darkness, the different parts of the Work must be lighted in a manner approved by the Contracting Officer.

If the Contractor desires to consistently work outside of regular hours, a formal written request shall be made to the Contracting Officer 5 days in advance. Requests to work outside regular working hours may be granted at the convenience of the Government.

1.6.5 Occupied and Existing Facilities

Before Work is started, arrange with the Contracting Officer a sequence of procedure, means of access, space for storage of materials and equipment, and use of approaches, corridors, and stairways.

1.6.6 Utility Cutovers and Interruptions

a. Make utility cutovers and interruptions so as not to interfere with normal fuel transfer operations.

b. Ensure that new utility lines are complete, except for the connection, before interrupting existing service.

c. Interruption to electric service, fire alarm, and fuel transfer operations are considered utility cutovers. Phase your Work so that utility interruptions to the Air Station and/or other Base facilities do not exceed 2 hours.

d. Operation of Station Utilities: The Contractor must not operate nor disturb the setting of control devices in the station utilities

system, including water, sewer, electrical, and steam services. The Government will operate the control devices as required for normal conduct of the Work. The Contractor must notify the Contracting Officer giving reasonable advance notice when such operation is required.

1.6.7 Hazardous Areas Work Clearance Request

1.6.7.1 Hazardous Areas

Do not enter into Work areas where personnel are using PPE such as respirator and masks or marked boundary areas without prior approval.

1.7 SECURITY REQUIREMENTS

Contract Clause FAR 52.204-2 Security Requirements and Alternate II and the following apply:

Coordinate with U.S. Coast Guard Base Kodiak Military Police for Base access for personnel, equipment and vehicles.

1.7.1 Personnel List

Contractor's superintendent shall keep a daily sign in log for all staff and all subcontractors and visitors on this Contract. The list shall match the List of Contract Personnel and may be reviewed periodically by the Contracting Officer, people not on the list shall be removed from the Site.

1.7.2 Base Access

Base Kodiak is a Federal facility. All personnel visiting the Site will be required to present Real ID Act compliant valid picture identification. (Note: Not all state issued drivers licenses are Real ID Act compliant. Inform your employees and subcontractors and delivery personnel as needed to avoid being denied entry). All personnel working on the Project Site must be legal to work in the United States of America and obtain a RapidGate identification (ID). Confirm Base Security office hours with local Base.

Any personnel without a RapidGate ID will require an escort; escorts can only be current or retired DHS or military personnel with a valid RapidGate ID. Escorts will not be provided by the Government. All vehicles entering the Site must present and carry proof of insurance at all times. Provide a written list of expected workers with their driver's license/identification card numbers and expected on-site duration to the Contracting Officer a minimum of 7 days prior to the personnel arriving.

All personnel shall carry proper ID when on-site. Proper ID is defined as either the individual's driver's license, or state federal picture ID or Passport compliant with Real ID Act.. The identification must be laminated, and show a facial picture of the individual. Individuals without proper ID will be escorted off the U.S. Coast Guard premises.

1.7.3 Vehicle List

Contact the Contracting Officer regarding regulations concerning vehicle passes. Furnish a complete list of over-the-road vehicles and construction equipment to the Contracting Officer. The list shall include the make, model, year built, and identifying marks.

All vehicles entering the Site must present and carry proof of insurance at all times.

1.8 SHIPMENT AND STORAGE OF MATERIALS AND EQUIPMENT

1.8.1 Shipment of Materials and Equipment

The Contractor is responsible for the transportation and receipt of all of materials, equipment and tools required for the completion of the Work of this Contract.

All shipment of materials, equipment and/or supplies by the Contractor to the Project Site shall be addressed to the Contractor, not to the Government. The Contractor must be on hand to accept shipments; the Government will not accept shipments.

Deliver products and materials in manufacturer's original unopened packages or containers bearing manufacturer's labels.

All loads shall be covered and secured in accordance with State of Alaska regulations. Any trucks found in violation of this requirement may be banned from accessing the Base, Installation, and/or Project Site.

All materials and equipment subject to damage during transportation, including but not limited to discoloring or deterioration from the elements, shall be shipped in weather tight enclosures. Provide ventilation to avoid condensation. Maintain temperature and humidity within the ranges stated in the manufacturer's printed instructions.

Hazardous material shipment and identification requirements shall be in accordance with Section 01 57 19 TEMPORARY ENVIRONMENTAL CONTROLS, and as stated in FAR 52.223-3.

1.8.2 Storage of Materials and Equipment

Provide storage area(s) in accordance with Section 01 50 00 TEMPORARY CONSTRUCTION FACILITIES AND CONTROLS.

Products delivered to the Project Site shall be the same as those indicated in approved submittals, do not store products on the Project Site that are not to be incorporated into the Work. Take care to prevent damage to approved products and provide storage in accordance with standard manufacturer's recommendations and as stipulated in the technical Specification sections.

There should be no expectation of security for the Contractor's materials. The Contractor shall be fully responsible for the security of all stored material and equipment, and shall erect temporary barriers to demark their Work/storage areas or other security measures he deems necessary, at his expense and in accordance with Section 01 50 00 TEMPORARY CONSTRUCTION FACILITIES AND CONTROLS. The Contractor shall be responsible for providing additional covered storage for materials, at his

expense. Any fencing installed in existing paved areas shall be surface mounted and weighed down for FOD countermeasures.

Provide FOD countermeasures on all aspects of your Work. Good control of all material shall be implemented and nothing that wind or rain can displace shall be left on-site. Materials left on-site shall be secured, covered or tied down, to implement FOD control.

Store materials and equipment subject to damage, discoloring, and/or deterioration from the elements in weather tight enclosures. Provide ventilation to avoid condensation. Maintain temperature and humidity within the ranges stated in the manufacturer's printed instructions.

Store fabricated products off the ground on platforms, blocking, or skids.

Store loose granulated material on solid surfaces such as paving, plywood, or sheet material to prevent mixing with foreign matter. Provide drainage to prevent ponding of rainwater. Prevent mixing of materials.

Runoff from stored metal materials is prohibited. All metal materials (iron, sheet metal, building components), shall be tarped when not actively loading/unloading, to prevent rain/runoff of metals to Base Kodiak's Installation's stormwater collection systems.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

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PRICE AND PAYMENT PROCEDURES

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SECTION 01 20 00

PRICE AND PAYMENT PROCEDURES
11/21

PART 1 GENERAL

1.1 WORK COVERED

This section includes the general requirements of the Contractor pertaining to preparation of Schedule of Prices and the submission of payment requests.

1.2 REFERENCES

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

FEDERAL ACQUISITION REGULATIONS (FAR)

FAR 32.503-6	Suspension or Reduction of Payments
FAR 52.232-5	Payments Under Fixed-Price Construction Contracts
FAR 52.232-27	Prompt Payment for Construction Contracts

1.3 SUBMITTALS

Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Schedule of Prices

This section covers the submittal requirements for progress payments. All items must be cost loaded and included on the Project Schedule to be a billable item. Line items must be 100% complete to be billed.

1.3.1 Submittal Transmittals

In accordance with Section 01 33 00 SUBMITTAL PROCEDURES, all submittals require a submittal transmittal form and all submittal transmittal forms must be signed by an authorized official of the Contractor, indicating that the Contractor has reviewed the submittal for conformance with all requirements of the Contract documents, in order to be accepted.

1.4 SCHEDULE OF PRICES

1.4.1 Data Required

Provide a detailed breakdown of the Contract price, giving quantities for each of the various kinds of Work, unit prices, and extended prices. Costs shall be summarized and totals provided for each construction category. Within 15 calendar days of notice of award, prepare and deliver to the Contracting Officer a Schedule of Prices(Construction Contract) as

directed by the Contracting Officer. Schedule of Prices must have cost summarized and totals provided for each construction category.

1.4.2 Schedule Instructions

Payments will not be made until the Schedule of Prices has been submitted to and accepted by the Contracting Officer. Schedule of Prices must identify the cost for Site Work, and include incidental Work to the 5 ft line. Identify costs for the building(s), and include Work out to the 5 ft line. Work out to the 5 ft line shall include construction encompassed within a theoretical line 5 ft from the face of exterior walls and shall include attendant construction, such as pad mounted HVAC cooling equipment, cooling towers, and transformers placed beyond the 5 ft line.

1.4.3 Format

Only computer generated schedules are acceptable. The Schedule of Prices shall conform to the format of the sample provided as "Attachment 1 - Example Schedule of Prices Forms" to these Specifications

Unless otherwise directed by the Contracting Officer, itemize every cost proposal submitted under this Contract as outlined in this paragraph. Costs of material, labor, equipment, subcontracts, overhead, and profit must be separately itemized for each distinct category of Work. The number of line items listed shall be left to the discretion of the Contractor, except that at least one item shall be listed for each Work activity listed in the Project Schedule.

Include necessary supporting documentation, invoices, etc. as attachments. For proposals involving time extensions due to Government-caused delays, include an analysis of the impact of the delay and an adjusted progress schedule.

The prices used in the Schedule of Prices shall be "loaded prices" including any applicable overhead, profit, labor burden, bonding, insurance, etc. The sum of all prices listed on the schedule shall match exactly the total Contract price to date.

1.4.3.1 Modifications

Contract modifications added to the Contract after approval of the original Schedule of Prices shall be included as separate line items on the bottom of the approved Schedule of Prices and incorporated in the next payment request. Resubmission of the Schedule of Prices due to Contract modification will not be required.

1.4.3.2 Prohibitions

The cost associated with individual line items shall accurately relate to the Work activity to which it is related. Front loading of the schedule in order to receive a disproportionate payment for Work early in the Contract shall result in disapproval of the Schedule of Prices.

1.4.4 Real Property Assets

Update Real Property Project Management Data Sheet (PMDS) provided as " Attachment 2 - Real Property PMDS" to these Specifications, cumulative %CC for each RPUID based on the pay request being submitted. This shall be considered part of the required backup for every construction phase pay

request.

The Contractor shall meet with the Contracting Officer and the Real Property Accounting Officer during the Pre Construction Meeting and the Project Closeout Meetings to modify and include any necessary changes to the PMDS. The Contractor shall provide the Interim PDMS that uses the appropriate division of the RPUIDs/ Category Codes to represent the final constructed facility and include all associated cost. Coordinate the Contractor's Price and Payment structure with the structure of the RPUIDs/ Category Codes.

Divide detailed asset breakdown into the RPUIDs and related construction Category Codes and populate associated costs which represent all aspects of the Work. Where assets diverge into multiple RPUID/ Category Codes, divide the asset and provide the proportion of the assets in each RPUID/ Category Code. Assets and related RPUID/ Category Codes may be modified by the Contracting Officer as necessary during course of the Work. Coordinate identification and proportion of these assets with the Government Real Property Accounting Officer.

Cost data accumulated under this section are required in the preparation of DD Form 1354.

1.5 CONTRACT MODIFICATIONS

Cost Proposals for Modifications: Itemize every cost proposal submitted as outlined in this paragraph. Costs allocable to material, labor, equipment, subcontractors, overhead, bonding, insurance and profit must be separately itemized for each distinct category or item of Work encompassed. Include documentation such as invoices, quotes, vendor estimates, or other supporting cost figures. Clearly state in the proposal if an extension in the performance period is required. For proposals involving time extensions, include rationale for the extension and a proposed adjusted Project Schedule.

Each executed Contract modification shall be added to the end of the approved Schedule of Prices.

1.6 CONTRACTOR'S INVOICE AND CONTRACT PERFORMANCE STATEMENT

1.6.1 Content of Invoice

Requests for payment will be processed in accordance with the Contract Clause FAR 52.232-27 Prompt Payment for Construction Contracts and FAR 52.232-5 Payments Under Fixed-Price Construction Contracts. Each request for payment shall include the documents listed below.

a. Request for Payment Form; this form is provided as "Attachment 3 - Request for Payment Form" to these Specifications. The Contracting Officer may approve alternate forms provided that they include the necessary information in a consistent format. The form shall summarize the basis for arriving at the amount of the invoice. Request for Payment forms shall include certification by Contractor and Quality Control (QC) Manager.

b. An up-to-date Schedule of Prices, showing in detail: the estimated cost, percentage of completion, and value of completed performance.

c. Updated Project Schedule

d. Reports required by the Contract.

e. Updated copy of submittal register.

f. Other supporting documents as requested.

Invoices not completed in accordance with Contract requirements will be returned to the Contractor for correction of the deficiencies.

1.6.2 Submission of Invoices

A submittal form cover page is not required for payment requests. The request shall be signed and dated by a person duly authorized by the Contractor.

During the construction phase: Organize your pay request in accordance with all requirements of this Specification section. Review the pay request and any supporting backup with the Contracting Officer's Representative (COR). The COR shall initial the line items as being in-place. Upon COR's approval, submit in accordance with the procedure outlined in the Task Order.

1.6.2.1 Frequency

In accordance with Section 01 32 16 PROJECT SCHEDULES, submit updated progress documentation along with the request for payment.

1.6.2.2 Mailing

One (1) hard copy of all payment requests shall be sent by first class mail or courier directly to the Contracting Officer to one of the following addresses:

USPS Mailing Address
ATTN: Intended Recipient
(to be assigned by KO)
CG Civil Engineering Unit Juneau
P.O. BOX 25517
Juneau, AK 99802-5517

FedEx or UPS Shipping Address:
ATTN: Intended Recipient
(to be assigned by KO)
CG Civil Engineering Unit Juneau
709 West 9th Street, Room 817
Juneau, Alaska 99801

1.6.3 Monthly Pay Requests

The Contractor's pay request consists of the approved Schedule of Values, the Project Schedule Baseline, and the data columns below.

a. Activity number from the accepted Project Schedule Baseline (or DPS)

b. Activity name from the accepted Project Schedule Baseline (or DPS)

c. RPUID Number associated with the activity (construction items only)

d. Schedule of Prices: These will be the Activity values approved by the Contracting Officer.

e. Activity Percent Complete to Date: Insert the percent complete value for this activity. (Note progress will be tracked but payment will be upon 100% completion only).

f. Previously billed Activities: The value in this field is carried over from the previous months approved invoice amounts.

g. Amount requested this invoice. This shall be only items that are 100% complete at submission of the pay request.

h. Remaining Activities Amount: This value shall be the remaining Work left to complete the Contract. (Schedule of Values, minus this billing and all prior billings.)

1.6.4 Final Invoice

a. A final invoice shall be accompanied by the Contractor's Final Release, DHS Form 700-3 provided as "Attachment 4 DHS Form 700-3" to these Specifications. If the Contractor is incorporated, the Final Release shall contain the corporate seal. An officer of the corporation shall sign and the corporate secretary shall certify the Final Release.

b. Final invoices not accompanied by the Contractor's Final Release will be considered incomplete and will be returned to the Contractor.

1.7 PAYMENTS TO THE CONTRACTOR

Payments will be made on submission of itemized requests by the Contractor which comply with the requirements of this section, and will be subject to reduction for overpayments or increase for underpayments made on previous payments to the Contractor.

Payment on Work will be approved only on the percentage of Work completed as of the date of the payment request. Percentages of Work complete for each line item shall be obtained by mutual agreement between the Contracting Officer and Contractor prior to submission of the payment request to the Contracting Officer.

1.7.1 Obligation of Government Payments

The Government shall have 14 working days to process each progress payment request based on the date the hard copy of the payment request is received and logged in by the Contracting Officer. Each request for payment will be stamped with the date received. Electronic submission of payment requests may be used in lieu of mailed submissions if specifically authorized by the Contracting Officer. All payment requests will be retained by the Government. Final payments have a 30 calendar day due date.

Retainage is defined as withholding a fixed percentage of payment from each Contractor payment request, as a matter of standard practice. The Government will not perform retainage on payments for this Work if the Contractor performance is satisfactory. However, the Government shall retain the right to commence retainage at any point if the Contractor exhibits unsatisfactory performance or does not proceed with due diligence in keeping with the approved Project Schedule. If retainage is commenced, the Contractor shall be informed by the Contracting Officer. Retainage will normally be limited to a maximum of 10%.

The obligation of the Government to make payments required under the provisions of this Contract will, at the discretion of the Contracting Officer, be subject to reductions and suspensions permitted under the FAR and agency regulations including the following in accordance with FAR 32.503-6 Suspension or Reduction of Payments:

a. Reasonable deductions due to defects in material or workmanship;

b. Claims which the Government may have against the Contractor under or in connection with this Contract;

c. Unless otherwise adjusted, repayment to the Government upon demand for overpayments made to the Contractor; and

d. Failure to provide up to date Record Drawings not current as stated in Contract Clause "FAR 5252.236-9310, Record Drawings."

1.7.2 Approval

The Contracting Officer is the only approving authority for payment requests.

1.7.3 Payment for On-site and Off-site Materials

Materials are considered a sub-activity of a complete activity. Activities may be divided into installation activities and materials activities. In order for material requests for payment to be considered, the material shall be per the approved submittal, on-site, inspected, and properly stored or protected, and proof of paid invoices provided. The amount requested cannot exceed the material amount identified on the approved schedule of values. If the paid invoice is less than the amount on the approved schedule of values, the remainder shall be applied to the installation phase and be billable once the activity is complete and tested.

Paid material invoices shall be legible and clearly document the type, quantity and cost of the materials covered by the invoice. The Contractor shall clearly mark on each invoice the activity number for which payment is being requested. For invoices covering more than one activity, the Contractor shall indicate both the activity number and the percentage of the total invoice to be applied. Incomplete or unreadable invoices will not be considered when processing payment requests.

If the Contractor orders products prior to receiving approval on required submittals, the Contractor shall be solely responsible if the submitted product is subsequently disapproved.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

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SECTION 01 30 00

ADMINISTRATIVE REQUIREMENTS
11/21

PART 1 GENERAL

1.1 REFERENCES

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

FEDERAL ACQUISITION REGULATIONS (FAR)

FAR 28.307-2	Liability
FAR 52.249-10	Default (Fixed-Price Construction)

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

29 CFR 1910	Occupational Safety and Health Standards
29 CFR 1926	Safety and Health Regulations for Construction

1.2 SUBMITTALS

Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-06 Test Reports

Daily Reports

SD-07 Certificates

Weekly Payroll Reports

1.2.1 Submittal Transmittals

In accordance with Section 01 33 00 SUBMITTAL PROCEDURES, all submittals require a submittal transmittal form and all submittal transmittal forms must be signed by an authorized official of the Contractor, indicating that the Contractor has reviewed the submittal for conformance with all requirements of the Contract documents, in order to be accepted.

1.3 MINIMUM INSURANCE REQUIREMENTS

Provide the minimum insurance coverage required by FAR 28.307-2 Liability, during the entire period of performance under this Contract.

1.4 SUPERVISION

1.4.1 Minimum Requirements

Have at least one qualified superintendent, or Contracting Officer

approved alternate, on the Project Site at all times during the performance of Contract Work. In addition, if a Quality Control (QC) representative is required on the Contract, then that individual must meet the requirements of Section 01 45 00 QUALITY CONTROL.

1.4.2 Superintendent Qualifications

The Project superintendent must have a minimum of 10 years experience in construction with at least 5 of those years as a superintendent on Projects similar in size and complexity. The individual must be familiar with the requirements of 29 CFR 1910 and 29 CFR 1926 and have experience in the areas of hazard identification and safety compliance. The individual must be capable of interpreting a critical path schedule and Construction Drawings. The qualification requirements for the alternate superintendent are the same as for the Project superintendent. The Contracting Officer may request proof of the superintendent's qualifications at any point in the Project if the performance of the superintendent is in question.

Unless approved otherwise by the Contracting Officer, the Project superintendent may not be assigned to any other projects or efforts besides the Project and Work included under this Contract.

For routine Projects where the superintendent is permitted to also serve as the Quality Control (QC) Manager as established in Section 01 45 00 QUALITY CONTROL, the superintendent must have qualifications in accordance with that section.

1.4.2.1 Duties

The Project superintendent is primarily responsible for managing and coordinating day-to-day production and schedule adherence on the Project. The superintendent is required to attend Red Zone meetings, partnering meetings, and quality control meetings. The superintendent or qualified alternative must be on-site at all times during the performance of this Contract until the Work is completed and accepted.

1.4.3 Non-Compliance Actions

The Project Superintendent is subject to removal by the Contracting Officer for non-compliance with requirements specified in the Contract and for failure to manage the Project to insure timely completion. Furthermore, the Contracting Officer may issue an order stopping all or part of the Work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders is acceptable as the subject of claim for extension of time for excess costs or damages by the Contractor.

1.5 REPORTS

1.5.1 Daily Reports:

The Contractor shall submit daily reports to the Contracting Officer using the form provided by the Government. The form is provided as "Attachment 5 - Standard Daily Report Form" to these Specifications.

Daily reports shall be submitted to the Contracting Officer by 9:00 am on the next work day. If Work is not completed on a regular work day due to weather or other constraints, submit a report indicating the reasons.

Submit daily reports electronically as pdf files. Reports should utilize a standard format/template throughout the Project duration. The daily report files shall be named as follows: YYYYMMDD "Project" Daily Report. Where YYYYMMDD is the date and "Project" is the abbreviated Project name. Whenever possible, the report and all attachments should be included in a single document.

In general, daily reports should include the following information:

a. Project title and Contract number.

b. Weather, including inches of rainfall and maximum/minimum temperatures (should be more detailed for outdoor Projects.

c. List of Contractor and subcontractor employees, their job categories, and the number of hours worked on the Project.

d. List of heavy equipment, and the number of hours working. The detailed description of Work performed (see below) should indicate what the equipment was used for.

e. A description of the Work performed and the Base impact areas.

f. List of materials delivered.

g. List of official visitors.

h. List of specific QC inspections and testing performed, including results and corrective actions. If inspection/test results are not yet available, describe what was done and submit results as soon as they become available. The Contractor shall use a tracking system to assure that all such inspection reports are submitted. Resubmittals that provide such additional information should consist of the entire Daily Report, not just the new sheets.

i. List of verbal instructions received from the Government.

j. Certification of the report by the Contractor's Quality Control Representative.

k. Other information to accurately and thoroughly document the Work. This may include photographs.

1.5.2 Weekly Payroll Reports

Weekly Payroll Reports required by Labor Standards Provisions shall be submitted to the Contracting Officer.

1.6 MEETINGS

1.6.1 Post-Award Conference:

The Post-Award Conference shall be conducted via teleconference and will be primarily to assist the Contractor with the documentation requirements and correct use of the forms.

1.6.2 Preconstruction Conference:

1.6.2.1 Meeting Minutes:

Meeting minutes shall be recorded by the Contractor. Contractor shall be responsible for the preparation and distribution of meeting minutes.

1.6.2.2 Notice to Proceed (NTP):

Commencement of construction will only be allowed after approval of the submittals listed above and completion of the Pre-construction Conference. Unless otherwise specified, the intent is to begin construction within a maximum of 30 calendar days after the award of the Contract/task order, providing the Contractor has complied with all requirements to date.

Failure of the Contractor to comply with the requirements of this section shall be grounds for determination by the Contracting Officer that the Contractor is not prosecuting the Work with such diligence as will ensure completion within the time specified. Upon such determination the Contracting Officer may terminate the Contractor's right to proceed with the Work, or any separable part thereof, in accordance with FAR 52.249-10 Default (Fixed-Price Construction).

1.6.3 Weekly Progress Meetings (Construction Phase):

Submit a proposed a method to impart information to the Contracting Officer and customer and receive customer & Contracting Officer input on a weekly basis. The proposed method will provide the required information listed in the weekly look ahead schedule (see Section 01 32 16 PROJECT SCHEDULES) and provide and solicit input on safety, provide current status of RFIs (Government and Internal) and CMRs, updates on submittal status, review quality assurance/control items, and provide Base impact maps. The proposed method shall include an update from the minutes of the previous weekly progress update and any open issues unresolved. The proposed method will be used to review status of the Work and to discuss current concerns, of customer Contractor on-site Contracting Officer.

Proposed method shall be during normal working hours and include concurrence on time by participants listed below.

1.6.3.1 Attendance:

Proposed Method shall include face to face participation of the following personnel:

Superintendent, Quality Control Manager, and other Contractor personnel as needed

Subcontractors or suppliers-as determined by you or the Contracting Officer

Contracting Officer and/or Customer

1.6.3.2 Meeting Minutes:

Meeting minutes shall be recorded by the Contractor. Contractor shall be responsible for the preparation and distribution of meeting minutes. Provide the minutes within 1 working days of the update.

1.6.4 Monthly Progress Meetings (Construction Phase):

Attend monthly coordination meetings at the Government's on-site office. Monthly progress meetings will be used to review the following:

Project Schedule update

Submittal log/catalog cuts and RFI's

Pending modifications

Request for Progress Payment

Safety Issues

Compliance issues

1.6.4.1 Pre-meeting Submissions:

1 days prior to the meeting complete the following:

Deliver the Project Schedule monthly up-date reports to the Contracting Officer.

Review your Request for Progress Payment with, and deliver to the Contracting Officer.

Notify the Contracting Officer of any other agenda items for discussion.

1.6.4.2 Attendance:

Attendance at the meeting will include the following:

Your on-site Project Management Team, including Managing Officer, subcontractors or suppliers, as determined by the Contractor or the Contracting Officer.

Contractor's Managing Officer, Superintendent, Quality Control Manager, on-site Project Management Team, and subcontractors or suppliers, as determined by the Contractor or the Contracting Officer.

1.6.4.3 Meeting Minutes:

Meeting minutes shall be recorded by the Contractor. Contractor shall be responsible for the preparation and distribution of meeting minutes. Submit minutes within 1 working days of meeting.

1.6.5 Labor Interviews:

The Government may conduct periodic Labor Standard interviews to insure the on-site workers are being paid the Davis Bacon wage rates, and that the applicable wage rates are properly posted and accessible to the on-site workforce. Ensure that access to employees and on-site trade personnel is provided upon request.

1.7 FACILITY TURNOVER PLANNING MEETINGS (U.S. Coast Guard District 17 Red Zone - CGRZ)

Meet with the Government to identify strategies to ensure the project is carried to expeditious closure and turnover to the Client. Start the turnover process at the Pre-Construction Conference meeting with a discussion of the U.S. Coast Guard District 17 Red Zone (CGRZ) process and convene at regularly scheduled CGRZ Meetings. Include the following in the facility Turnover effort:

1.7.1 CGRZ Checklist

a. Contracting Officer (COR) will provide the Contractor a copy of the CGRZ Checklist template prior to 75 percent completion.

b. Prior to 75 percent completion add/delete critical activities to the CGRZ Checklist template as necessary to match the project scope, and schedule critical activities and insert planned completion dates in the CGRZ checklist for each critical activity. Present the CGRZ Checklist to COR and review during a regularly scheduled QC Meeting.

1.7.2 Meetings

a. Upon Government acceptance of the CGRZ Checklist, the Project Superintendent is required to lead regular CGRZ Meetings beginning at approximately 75 percent project completion, or three to six months prior to Beneficial Occupancy Date (BOD), whichever comes first.

b. The Contracting Officer will determine the frequency of the meetings, which is expected to increase as the project completion draws nearer.

c. Using the CGRZ Checklist as a Plan of Action and Milestones (POAM) and basis for discussion, review upcoming critical activities and strategies to ensure work is completed on time.

d. Coordinate with the COR any upcoming activities that require Government involvement.

e. Maintain the CGRZ Checklist by documenting the actual completion dates as work is completed and update the CGRZ Checklist with revised planned completion dates as necessary to match progress. Distribute copies of the current CGRZ Checklist to attendees at each CGRZ Meeting.

1.8 ELECTRONIC MAIL (E-MAIL) ADDRESS

Establish and maintain electronic mail (e-mail) capability along with the capability to open various electronic attachments as text files, pdf files, and other similar formats. Within 10 days after Contract award, provide the Contracting Officer a single (only one) e-mail address for electronic communications from the Contracting Officer related to this Contract including, but not limited to Contract documents, invoice information, request for proposals, and other correspondence. The Contracting Officer may also use email to notify the Contractor of base access conditions when emergency conditions warrant, such as hurricanes or terrorist threats. Multiple email addresses are not allowed.

It is the Contractor's responsibility to make timely distribution of all Contracting Officer initiated e-mail with its own organization including

field office(s). Promptly notify the Contracting Officer, in writing, of any changes to this email address.

PART 2 PRODUCTS

2.1 PROJECT FILE MANAGEMENT AND ACCESSIBILITY

Provide, administer, and maintain a computerized Project File Management website as a means of access to Project files by all parties involved with the Project throughout this Contract duration. The Project File Management system will assist the Contracting Officer with:

Access to Project files at any time; and

Ability to add/remove/update files at any time which may result from modifications to the Contract, Work, and/or design.

2.1.1 System Criteria

The Project Management System must be capable and adhere to the following criteria:

a. Must be a website which is accessible without the requirement to download software onto a computer. (No active x downloads).

b. Must show all files and folders that have been uploaded to the site.

c. Must be username & password protected for security purposes.

d. Files on-site must be downloadable and uploadable by the Contracting Officer.

e. Download speed shall be minimum 1meg/sec.

f. Upload all files as either PDF's or JPEG images.

g. Anytime a file is uploaded or changed, a notification must be sent to all members via email to their U.S. Coat Guard E-mail account or as designated by the Contracting Officer.

h. If web based the site must have valid and current security certificates.

2.1.2 Management System Content

The Contractor must upload the following files, at a minimum, onto the File Management System throughout the Project duration:

a. RFI's to Government (during construction)

b. RFI's internal (during construction)

c. RFI's to Government logs & RFI internal logs

d. Submittals

e. Submittal logs

f. Testing logs and documents

g. All Drawings, including Shop Drawings

h. Plans

i. Specifications

j. All Site photos taken

k. CMR's

l. Schedules (organized by month) in all 3 formats per Section 01 32 16PROJECT SCHEDULES

m. All meeting minutes

n. All daily and weekly logs

o. Permits and permit applications

p. Geotechnical data/reports/logs

q. Quality Control documentation

2.1.3 Project Folder Organization:

The Contractor must maintain organization of folders and files to aid in ease of use and accessibility. The folders listed below must be organized in the following fashion, respectively, within the master Project folder:

a. RFI's internal: Each separated into its own folder listed RFI (corresponding #)

b. RFI's to Government: Each separated into its own folder listed RFI (corresponding #)

c. RFI internal Log: by Date

d. RFI to Government Log by Date

e. Testing Documents: Testing -> (one respective folder for; Logs, Reports, Inspection.)

f. Site Photos: Photos -> Month -> Day -> (files)

g. CMR's: Each separated into its own folder listed CMR (corresponding #)

h. CMR log: by Date

i. Schedules: Schedule -> Month -> (files)

j. Schedule Analysis -> Month -> (files)

k. Meeting Minutes: Meeting Minutes -> Month -> Week -> Day -> (files)

l. Daily & Weekly reports: Dailies & Weeklies -> Month -> Week -> Day -> (files) with weekly logs labeled "Week #X (MM/DD/YY - MM/DD/YY)", where the Week number refers to Project weeks.

m. Permit Documents: Permits -> (permit name) -> (corresponding documents)

n. Geotechnical Data: (same as Testing Documents)

o. QA/QC reports "Week #X (MM/DD/YY - MM/DD/YY"

Provide 3 sets of CDs of all data collected on the site from beginning of the Project until the end including the O&M Data. Mail sets to Contracting Officer during Project Closeout, see Section 01 78 00 CLOSEOUT SUBMITTALS.

PART 3 EXECUTION

Not Used

-- End of Section --

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PROJECT SCHEDULES
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PART 1 GENERAL

1.1 WORK COVERED

This section includes the general requirements of the Contractor pertaining to preparation of Project and Progress Schedules.

Provide, administer, and maintain a computerized Project Schedule as a tool for planning and executing the Work. The Project Schedule will assist the Contracting Officer with evaluating the sequence and progress of the Work, making progress payments, and making decisions relative to time and/or cost adjustments which may result from modifications to the Work.

It is expressly understood and agreed that the time of beginning, the rate of progress, and the time of completion of the Work are of the essence of this Contract. Execute the Work as required to prevent any delay to the Contract milestone dates or the general completion of the Contract.

1.2 REFERENCES

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

FEDERAL ACQUISITION REGULATIONS (FAR)

FAR 52.236-15 Schedules for Construction Contracts

1.3 SUBMITTALS

Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Baseline Project Schedule

SD-07 Certificates

Monthly Updates

1.3.1 Submittal Transmittals

In accordance with Section 01 33 00 SUBMITTAL PROCEDURES, all submittals require a submittal transmittal form and all submittal transmittal forms must be signed by an authorized official of the Contractor, indicating that the Contractor has reviewed the submittal for conformance with all requirements of the Contract documents, in order to be accepted.

1.4 BASELINE PROJECT SCHEDULE

Within 30 calendar days after contract award and prior to the start of work,prepare and submit a Baseline Project Schedule in the form of a Network Analysis Schedule (NAS) in accordance with the terms in Contract Clause FAR 52.236-15 Schedules for Construction Contracts, except as modified in this Contract. The approval of a Baseline Project Schedule is a condition precedent to:

a. The Contractor starting demolition Work or construction stage(s) of the Contract.

b. Processing Contractor's invoice(s) for construction activities/items of Work.

c. Review of any Schedule updates.

See Sections 01 11 00 SUMMARY OF WORK, 01 14 00 WORK RESTRICTIONS, 01 30 00 ADMINISTRATIVE REQUIREMENTS, and 01 50 00 TEMPORARY CONSTRUCTION FACILITIES AND CONTROLS for start date assumptions and detailed minimum phasing and sequencing requirements, mandatory interim milestones, and additional temporary facilities. See paragraph 1.8 and Section 01 33 00 SUBMITTAL PROCEDURES for submittal, review and approval of the Project Schedule.

The Baseline Project Schedule consists of diagrams and reports covering the entire Contract from Contract Award to Final Acceptance. Specific deliverables are listed below.

a. Detailed precedence diagram/Bar Chart

(1) Provide an electronic copy to the Contracting Officer with a title block and a calendar day timeline on each page. Upon request, print the detailed bar charts in color, on 11x17 sheets minimum.

(2) Time scale the chart to show a continuous flow of information from left to right.

(3) Show the critical path in red clearly and graphically on the chart with solid bars.

(4) Organize the bar chart by Work Area groupings.

(5) Show fixed Contract dates (Contract completion date and current or data date) as bold vertical lines on the printout.

b. Schedule of Cost Loading/Schedule of Prices

c. Written Confirmation of subcontractors and Suppliers

(1) Provide the Contracting Officer with written confirmation of the concurrence of all major trade subcontractors and suppliers with the Baseline Project Schedule.

(2) For purposes of this Article, the term "major subcontractors and suppliers" includes any subcontractor or supplier with 20 percent or more of the value of the Contract.

Submittal of the Baseline Project Schedule, and subsequent Schedule updates, is understood to be the Contractor's certification that the submitted Schedule meets the requirements of the Contract Documents, represents the Contractor's plan on how the Work will be accomplished, and accurately reflects the Work that has been accomplished and how it was sequenced (as-built logic).

By execution of the Contract, the Contractor acknowledges that the following have been analyzed.

a. The Scope of the Work, including interim milestones, time and effort to acquire required permits from jurisdictional authorities as required to comply with the Scope of Work of this Contract.

b. The materials and methods of construction required.

c. The availability of skilled and unskilled labor.

d. Restrictions of the Site.

e. Constraints imposed by the Contract

f. Your own Work load and capacity to perform the Work, and that you agree the specified times are reasonable considering the existing conditions prevailing in the locality of the Work, including weather conditions and other factors, with a reasonable allowance for variations from average.

1.5 SCHEDULE FORMAT

1.5.1 General Schedule Requirements

The following paragraphs contain general scheduling requirements applicable to all components of the Project Schedule submissions.

a. The overall Project Schedule is made up of several related components and submissions. Unless otherwise indicated, the term "Project Schedule" refers to all components of the Schedule, as follows.

(1) Baseline Project Schedule

(2) 3-Week Look Ahead Planning Schedule

(3) Monthly Updates: These components each have several specific deliverables (e.g., reports or diagrams) that are explained in detail in this Section.

b. **Only computer generated Schedules are acceptable.** Project Schedules shall be in the form of a Gant bar chart or other similar bar chart conforming to the critical-path-method for Project Management Planning. The Project Schedule shall list each Work activity along the left vertical side of the page, with a timeline along the top horizontal side of the page.

c. The Project Schedule must show the sequence and interdependence of activities required for complete performance of the Work, beginning with the Contract Award and concluding with the date of Final Acceptance of the Contract. Show all activities in work days, with allowance for the effects of normal weather conditions on outside Work

d. The following information shall be easily determined for each Work activity listed: start date, finish date, duration in days, crew size, and if the activity falls along the critical path. Indicate the date of mobilization to and demobilization from the Project Site on the Schedule. The number of Work activities listed shall be left to the discretion of the Contractor, except that at least one activity shall be listed for each technical Specification division included herein.

e. Activity time durations shall be in units of Project Work Days. They shall be based on the optimum labor, equipment, and materials required to perform each activity on a normal work day basis.

f. No on-site activity may have duration over ten working days, except non-construction activities, such as submittal reviews, procurement, and delivery of materials or equipment, and concrete curing. The duration of each listed non-construction activity shall be limited to not more than 14 calendar days, otherwise the activity shall be broken down into a series of shorter activities.

g. The Project Schedule must comply with all limits imposed by the Scope of Work, with all contractually specified intermediate milestone and completion dates, and with all constraints, restraints, or sequences included in the Contract.

1.5.2 Network Analysis Schedule (NAS)

Use the critical path method (CPM) to schedule and control Project activities. The scheduling software that will be utilized by the Government on this Project is Microsoft Project 2010 (or later) by Microsoft, Inc. Notwithstanding any other provision in the Contract, Schedules submitted for this Project must be prepared using Microsoft Project. Submission of data from another software system where data conversion techniques or software is used to import into Microsoft Projects scheduling software is not acceptable and will be cause for rejection of the submitted Schedule.

Within 15 calendar days after approval of the Initial Schedule, submit to the Contracting Officer a final NAS Schedule.

1.5.2.1 Activity Requirements

a. The degree of detail of the Project Schedule and the selection and number of activities is subject to the approval of the Contracting Officer. It shall include, but is not limited to the following:

(1) Preparation, submission, and approval of Baseline Project Schedule and Schedule of Prices

(2) Construction time for major systems and components

(3) Each activity assigned with its appropriate Responsibility Code

(4) Each activity assigned with its appropriate Phase and Area Codes

(5) Mobilization and installation of temporary facilities, storage, and Construction trailer

(6) Review of Shop Drawings, product data, and samples

(7) Any construction phase submittal requiring Government review (include 14 working days minimum unless otherwise indicated in the RFP)

(8) Soliciting, review and award of subcontracts by major discipline

(9) Procurement of materials and equipment

(10) On-site Pre-construction Meeting

(11) Shipping and delivery of materials and equipment

(12) Instructions for operating and maintaining equipment and systems

(13) Quality Control activities

(14) Earthwork and Site utilities

(15) Utility outages

(16) Paving

(17) Draft O&M Manuals (including Equipment listing for enrollment)

(18) Training

(19) First-final O&M Manuals (including Equipment listing for enrollment)

(20) Final survey, horizontal and vertical control

(21) Final Inspection (7 working days duration)

(22) Punch List (14 working days duration)

(23) Final O&M Manuals (including Equipment listing for enrollment)

(24) Final Acceptance

(25) Demobilization

b. Build the Schedule as follows:

(1) Show submittals, Government review periods, material/equipment delivery, utility outages, on-site construction, inspection, testing, and closeout activities. Government and Contractor on-site Work activities must be driven by calendars that reflect Saturdays, Sundays and all Federal Holidays as non-work days for 5-day work week calendars. 6-day work week calendars must reflect Sundays and all Federal Holidays as non-work days. 7-day work week calendars must reflect all Federal Holidays as non-work days unless otherwise agreed to by the Contracting Officer. Total work hours/day for all defined calendars is set to 8 unless otherwise agreed upon.

(2) With the exception of the Contract Award and End Contract milestone activities, use of open-ended activities is not allowed;

each activity must have predecessor and successor ties. No activity must have open start or open finish (dangling) logic. Minimize redundant logic ties. Once an activity exists on the Schedule it must not be deleted or renamed to change the scope of the activity and must not be removed from the Schedule logic without approval from the Contracting Officer. While an activity cannot be deleted, where said activity is no longer applicable to the Schedule but must remain within the logic stream for historical record, it can be changed to a milestone. Document any such change in the milestone's "Notebook," including a date and explanation for the change. The ID number for a deleted activity must not be re-used for another activity.

(3) Assign each activity its appropriate Responsibility Code and Area Code, indicating location and responsibility to accomplish the Work indicated by the activity, Phase Code, and Work Location Code. Include anticipated tasks to be assigned Government responsibility.

(4) Date/time constraints or lags, other than those required by the Contract, are not allowed unless approved by the Contracting Officer. Include as the last activity in the Contract Schedule, a milestone activity named "Contract Completion Date".

(5) Include the following Contract Milestones:

(a) Include as the first activity on the Schedule a start milestone titled "Contract Award", which must have a Mandatory Start constraint equal to the Contract Award Date;

(b) Include Interim or Phased Completion Milestones required by the Contract or as approved by the Contracting Officer;

(c) Include Facility Turnover Planning Meeting Milestones;

(d) Include an unconstrained finish milestone on the Scheduletitled "Substantial Completion". Substantial Completion is defined as the point in time the Government would consider the Project ready for beneficial occupancy wherein by mutual agreement of the Government and Contractor. Government use of the facility is allowed while construction access continues in order to complete remaining items (e.g., punch list and other close out submittals).

(e) Include an unconstrained finish milestone on the Schedule titled "Projected Completion". Projected Completion is defined as the point in time the Government would consider the Project complete. This milestone must have the Contract Completion Date (CCD) milestone as its only successor.

(f) Include as the last activity on the Schedule a finish milestone titled "Contract Completion (CCD)" with constraint type "Must Finish No Later Than". Calculation of Schedule updates must be such that if the finish of the "Projected Completion" milestone falls after the Contract completion date, then negative float will be calculated on the longest path and if the finish of the "Projected Completion" milestone falls before the Contract completion date, the float calculation must reflect positive float on the longest path. This milestone must be set to 5:00 pm.

(6) Provide lead time for major equipment.

1.5.2.2 Anticipated Weather Lost Work Days

Use the National Oceanic and Atmospheric Administration's (NOAA) Summary of Monthly Normals report to obtain the historical average number of days each month with precipitation, using a nominal 30-year, greater than 0.10 inch precipitation amount parameter, as indicated on the Station Report for the NOAA location closest to the Project Site as the basis for establishing a "Weather Calendar" showing the number of anticipated non-work days for each month due to adverse weather, in addition to Saturdays, Sundays and all Federal Holidays as non-work days.

Use the following Schedule of anticipated monthly non-work days due to adverse weather as the basis for establishing a "Weather Calendar" showing the number of anticipated non-work days for each month due to adverse weather, in addition to Saturdays, Sundays and all Federal Holidays as non-work days.

MONTHLY ANTICIPATED ADVERSE WEATHER DELAYS											
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2	2	2	2	2	2	2	2	2	2	2	2

Assign the Weather Calendar to any activity that could be impacted by adverse weather. The Contracting Officer will issue a modification in accordance with the Contract clauses, giving the Contractor a time extension for the difference of days between the anticipated and actual adverse weather delay if the number of actual adverse weather delay days exceeds the number of days anticipated for the month in which the delay occurs and the adverse weather delayed activities are on the longest path to Contract completion in the period when the delay occurred. A lost work day due to weather conditions is defined as a day in which the Contractor cannot work at least 50 percent of the day on the impacted activity. Impacts resulting from adverse weather must be documented in Narrative Report for the month that it occurred.

Make necessary updates to Project calendars and schedules to reflect as-built conditions where work occurred where originally anticipated as non-work days, and where work did not occur (lost work day).

1.5.2.3 Activity Identification

a. Identify Government, Construction Quality Management (CQM), Construction activities planned for the Project and other activities that could impact Project completion if delayed.

b. Identify administrative type activity/milestones including pre-construction submittal and permit requirements prior to demolition or construction stage.

c. Create separate activities for each Phase, Area, Floor Level, and Location the activity is occurring.

d. Do not use construction category activity to represent non-work type reference (Such as, Serial Letter or Request for Information) in NAS.

e. Place non-work reference within an activity details notebook. Activity categories included in the Schedule are specified below.

1.5.2.3.1 Responsibility Code

Provide Responsibility Codes for each activity. Responsibility Codes are assigned to the field identifying the organization completing the specific activity (e.g., Prime Contractor, subcontractor's name, Government, etc.).

Assign each activity its appropriate Responsibility Code indicating responsibility to accomplish the Work indicated by the activity, Phase Code and Work Location Code.

1.5.2.3.2 Activity Naming Requirements for Construction Costs

Provide Hammocks utilizing the naming convention identified on the PMDS (see Section 01 20 00 PRICE AND PAYMENT PROCEDURES) sheet as "Asset Name". Activity names of the subtasks within the hammock shall be as needed to define the Work that logically supports the "Asset Names" and meets the other listed conditions of the Contract. General costs that support the entire Project shall be distributed based on weighted values of the all RPUIDs provided. All construction activities on the Schedule and Schedule of Prices must have an assigned RPFN and/or RPUID. Any modification shall be assigned to a RPUID when added to your cost loaded Schedule. For bidding purposes if the Project specific PMDS is not provided with the bid document, assume there will be 45 RPUID's, 45 "Asset Names" to assign to the hammock and subtasks. The pay request requires updating the %CC for each of these "Asset Names" monthly so organize your Schedule to facilitate this requirement.

1.5.2.4 Microsoft Project 2010 (or later) Settings and Parameters

Use the following MS Project 2010 settings and parameters in preparing the Baseline Schedule:

a. The Network must have a minimum of 30 construction activities.

b. No on-site construction activity may have durations in excess of 20 working days.

c. Critical is defined as having zero days of Total Slack. Within the Baseline Schedule no more than 20 percent of the activities shall be critical.

d. Logic: include the following setting: File, Options, Schedule tab - Split in-progress tasks - must be selected.

e. Status Date gridline is displayed in the Gantt Chart view.

f. Task Type is set to Fixed Work for "boots-on-the-ground" construction activities.

g. Task Type is set to Fixed Duration for design activities, submittals, Government reviews, procurement, material/equipment delivery, and utility outages.

h. "Effort Driven" is turned ON for Fixed Duration tasks.

i. Time Periods established for the Project are set to 8 Hrs/Day, 40 Hrs/Week and 20 days/month.

j. Week starts on Monday must be selected.

k. Default start time is set to 8am (0800).

l. Default end time is set to 5pm (1700).

1.5.3 Schedule Submittals and Procedures

Submit Schedules and updates on electronic media that is acceptable to the Contracting Officer. Provide an electronic copy to the Contracting Officer with a title block and a calendar day timeline on each page. Upon request, print the detailed schedules in color, on 11x17 sheets minimum.

1.6 SCHEDULE MONTHLY UPDATES

Section 01 20 00 PRICE AND PAYMENT PROCEDURES describes the requirements for making the Request for Progress Payment. In addition, the Contract requires that the Schedule be maintained as an as-built document. Update the Project Schedule at monthly intervals or when the Schedule has been revised. Record actual dates for all activities and adjust the network as necessary to reflect actual execution of the Work. PAYMENT REQUESTS WILL NOT BE PROCESSED UNTIL SUCH UPDATES HAVE BEEN MADE.

Keep the updated Schedule current, reflecting actual activity progress and plan for completing the remaining Work. The update is to be made from the Baseline Project Schedule. It includes the earned value report in accordance with this Section and Section 01 20 00 PRICE AND PAYMENT PROCEDURES and the Project Summary Narrative report. Include copies of purchase orders and confirmation of delivery dates as directed by the Contracting Officer. Print the detailed bar charts in color, on 11x17 sheets minimum, with a title block and a calendar day timeline on each page. Time scale the chart to show a continuous flow of information from left to right. Show the critical path clearly and graphically on the chart with solid bars. Organize the bar chart by Work Area groupings. Also, provide an electronic copy to the Contracting Officer.

1.6.1 Earned Value Report

The Earned Value Report is based on the Schedule of Prices from the accepted cost loaded Baseline Project Schedule. No activities can be billed until they are 100%. No Billing can be submitted without an accepted Schedule of Prices. See Section 01 20 00 PRICE AND PAYMENT PROCEDURES for additional requirements. Breakdown of the Schedule of Prices should be in the following columns.

a. Activity Name Hammock

b. Subtask activity

c. Paid

d. This pay request

e. Remaining Contract Work

1.6.2 Project Summary Narrative Report

The Project Summary Narrative Report is an analysis that must be submitted with the monthly Schedule update. This report shall indicate all critical path activities that are behind schedule by more than 7 calendar days, describe the cause of the delay and remedial action being taken to correct the schedule slippage. This report must be signed by the Contractor's Project Manager for this Contract. The Project Summary Narrative Report must identify and justify the following:

a. Progress made in each area of the Project

b. Longest Path: Include printed copy on 11 by 17 inch paper, landscape setting

c. Date/time constraint(s), other than those required by the Contract

d. Listing of changes made between the previous Schedule and current updated Schedule including: added or removed activities, original and remaining durations for activities that have not started, logic (sequence, constraint, lag/lead), milestones, planned sequence of operations, longest path, calendars or calendar assignments, and cost loading.

e. Any decrease in previously reported activity Earned Amount

f. Pending items and status thereof, including permits, changes orders, and time extensions

g. Status of Contract Completion Date and interim milestones

h. Current and anticipated delays (describe cause of delay and corrective actions(s) and mitigation measures to minimize)

i. Description of current and future Schedule problem areas.

For each entry in the narrative report, cite the respective Activity ID and Activity Name, the date and reason for the change, and description of the change.

1.7 3-WEEK LOOK AHEAD SCHEDULE

Prepare and issue 3-Week Look Ahead Schedules to provide a more detailed day-to-day plan of upcoming Work identified on the Project Schedule. Key the Work plans to activity numbers when a NAS is required and update each week to show the planned Work for the current and following two-week period. This Schedule will provide a detailed list of activities for Work during those weeks. Sort the activities in a logical manner, for example, by area of the building and trade. Additionally, include upcoming outages, closures, preparatory meetings, and initial meetings. Identify critical path activities on the Three-Week Look Ahead Schedule. The detail Work plans are to be bar chart type Schedules, produced from, but maintained separately from the last Monthly Project Schedule Update.

Produce and maintain Look Ahead Schedules using an electronic spreadsheet program. Print the bar charts on 11 by 17 inch sheets, with a title block and a calendar day timeline on each page. Time scale the chart to show a continuous flow of information from left to right. Show the critical path clearly and graphically on the chart with solid bars. Organize the bar

chart by subcontractor groupings. Provide blank lines between each activity to allow for detailed breakdown into sub-activities. These shall indicate all upcoming and on-going Work in the next 3 weeks from the date of the meeting.

Activities must not exceed 5 working days in duration and have sufficient level of detail to assign crews, tools and equipment required to complete the Work.

E-mail to Contracting Officer and provide hard copies upon request no later than 8 a.m. each Monday, and review during the weekly Quality Control Coordination or Production Meeting. Make copies available to all meeting participants and electronically.

1.8 SCHEDULE SUBMITTALS AND PROCEDURES

This section applies to submission of all Project Schedule components.

1.8.1 Submittal Timing

Submit the Project Schedule according to the following timetable.

a. Project Baseline Schedules: Submit the Baseline Project Schedule to the Contracting Officer a minimum of 14 working days prior to the preconstruction meeting.

b. Monthly Updates: With the monthly pay request or at a minimum once every 30 calendar days.

c. 3-Week Look Ahead Schedules: No later than 24 hours prior to the Weekly Progress Meeting.

1.8.2 Acceptance of the Project Schedule

The Contracting Officer will review the Schedule for compliance with the Contract requirements (such as phasing, payment, etc.) only. Sequencing and scheduling of construction for completion of the contractually required Work is the responsibility of the Contractor. Contracting Officer's acceptance of the Schedule and any subsequently modified Schedules does not relieve the Contractor of any Contract requirements omitted and not found by the Contracting Officer. The Contracting Officer will not approve or accept the Schedule and its critical path as being correct, achievable or the most effective and/or efficient means to complete the Project within the Contract period of performance. If the Schedule is rejected, re-submit at no cost to the Government.

1.8.2.1 Comments by the Contracting Officer

Comments made by the Contracting Officer or Government representatives on the Project Schedule submissions during review shall not relieve the Contractor from compliance with the requirements of the Contract documents.

Following receipt of the Contracting Officer's review comments, review the Schedule to identify missing activities and relationships relevant to the Scope of the Work. No time extensions will be granted by the Contracting Officer to complete activities not initially included in the Project Schedule submissions.

To the extent that there are any conflicts between the accepted Project

Schedules and the requirements of the Contract Documents, the Contract Documents govern.

1.8.2.2 Re-Submittal Following Non-Acceptance

Should the Contracting Officer not accept the Contractor's submission of the Project Schedule, comply with the Contracting Officer's direction and resubmit the Project Schedule and all associated submittals within 7 calendar days.

1.9 CONTRACT MODIFICATIONS

Execute the Work in accordance with the accepted Project Schedule. Out of sequence construction, defined as a change from the Project Schedule in actual operations, requires prior approval from the Contracting Officer.

Upon the approval of a Contract Modification by the Contracting Officer, the agreed upon modification activities, activity durations, logic, and impacts shall be reflected in the next Schedule submittal.

No change to the approved activities, original activity durations, logic, interdependencies, milestones, planned sequence of operations, or resource and cost loading of the Project Schedule may be made without prior written approval from the Contracting Officer. If the Contractor desires to make a change to the approved Project Schedule, request permission from the Contracting officer in writing, stating the reasons for the change as well as the impacts of the change, such as the proposed changes in activities, original activity durations, logic, interdependencies, milestones, planned sequence of operations, or resource and cost loading of the Project Schedule. The Contracting Officer will respond within 14 calendar days after the receipt of the change request.

A new Progress Schedule shall be submitted for any modification(s) that adds more than 7 calendar days, either individually or cumulatively, to the critical path of the approved Project Baseline Schedule. Additionally, a new Progress Schedule shall be submitted as soon as the Contractor determines that the current progress of Work will delay the completion date as listed on the approved Project Baseline Schedule by more than 7 calendar days.

1.9.1 Major Revisions

If the Contracting Officer considers the Project Schedule change requested to be of a major nature, the Contracting Officer may require the Contractor to revise and submit for approval, without additional cost to the Government, all of the affected portions of the network diagrams, and any Schedule reports, cost and cash flow projections, manpower forecasts, or other reports deemed necessary to show the probable effect on the entire Project. Submit the proposed network revision and required reports to the Contracting Officer within 7 calendar days after the Contracting Officer notifies that the requested revision is of a major nature. Only upon the approval of the requested change by the Contracting Officer shall it be reflected in the next Project Schedule update submitted.

A change will be considered of a major nature if the time estimated for an activity or sequence of activities is varied from the original (early start - early finish) plan to the degree that there is reasonable doubt that the Contract completion date or milestones will be met, or if the change impacts the Work of other Contractors at the Project Site. Changes

to activities having adequate float will be considered as minor changes, except that an accumulation of minor changes may be considered a major change when such changes affect the Contract completion date or milestones.

1.9.2 Adjustment of Effort

Whenever it becomes apparent that any critical activity completion date may not be met, take the following actions at no additional cost to the Government.

a. Increase construction manpower to put Work back on schedule; and/or

b. Increase the number of work hours per shift, shifts per day, work days per week, amount of construction equipment, or all or any combination of these actions to put Work back on schedule; and/or

c. Re-schedule activities to achieve maximum practical concurrence to place the Work back on schedule.

The Contracting Officer may also require the Contractor to submit for approval, at no additional cost to the Government, such supplementary Progress Schedules, associated reports, and other supporting data deemed necessary to demonstrate how the approved Project Schedule will be regained.

1.9.3 Time Extensions

Time extensions of the Contract completion date or milestones will be granted only to the extent that adjustments to the activity or activities affected by a Contract Modification or delay affect the critical path of activities leading to the Contract completion date or milestones. This determination will be made based on the date that the Contracting Officer issues a notice to proceed with a modification or the date an actual delay begins.

Weather delays for normal weather conditions will not be considered. Non-compensable delays for severe weather may be considered if it can be shown that the weather was unusually severe and the activities affected were on the critical path of the current, updated Project Schedule diagram. Normal weather conditions will be based on a nationally recognized statistical average for the Project Site and in accordance with this Section and Sections 01 11 00 SUMMARY OF WORK and 01 14 00 WORK RESTRICTIONS.

Approval or rejections of each time extension request will be made by the Contracting Officer within 14 calendar days after receipt of request, unless subsequent meetings and negotiations are necessary.

1.9.4 Time Impact Analysis Requirements

Submit a written Time Impact Analysis (TIA) with each cost and/or time proposal for a proposed change. TIA must illustrate the influence of each change or delay on the Contract Completion Date or milestones. No time extensions will be granted nor delay damages paid unless a delay occurs which consumes all available Project Float, and extends the Projected Finish beyond the Contract Completion Date. Each TIA must demonstrate the estimated time impact based on the date the change was issued, the events

of the delay, the status of construction at that point in time, and the event time computation of all activities affected by the change or delay. The event times used in the TIA will be those included in the latest update of the Project Schedule in effect at the time the change or delay was encountered.

a. Each TIA must be in both narrative and Schedule form. The narrative must define the scope and conditions of the change; provide start and finish dates of impact, successor and predecessor activity to impact period, responsible party, describe how it originated, and how it impacts the Schedule. The Schedule submission must consist of three native files:

(1) Fragnet used to define the scope of the changed condition and how you propose to incorporate the change order or delay into the Project Schedule. A fragnet is defined as a sequence of new activities and/or activity revisions that are proposed to be added to the existing Schedule to demonstrate the influence of delay and the method for incorporating delays and impacts into the Schedule as they are encountered.

(2) Most recent accepted Schedule update as of the time of the proposal or claim submission that has been updated to show all activity progress as of the time of the impact start date.

(3) The impacted Schedule that has the fragnet inserted in the updated Schedule and the Schedule "run" so that the new completion date is determined.

b. For claimed As-Built Project delay, the inserted fragnet TIA method must be modified to account for as-built events known to occur after the data date of Schedule update used.

c. TIAs must include any mitigation, and must determine the apportionment of the overall delay assignable to each individual delay. Apportionment must provide identification of delay type and classification of delay by compensable and non-compensable events. The associated narrative must clearly describe analysis methodology used, and the findings in a chronological listing beginning with the earliest delay event.

(1) Identify and classify types of delays as follows:

(a) Force majeure delay (e.g., weather delay): Any delay event caused by something or someone other than the Government (including its agents) or the Contractor, or the risk of which has not been assigned solely to the Government or the Contractor. If the force majeure delay is on the critical path, in absence of other types of concurrent delays, the Contractor is granted an extension of Contract time, classified as a non-compensable event.

(b) A Contractor-delay: Any delay event caused by the Contractor, or the risk of which has been assigned solely to the Contractor. If the Contractor-delay is on the critical path, in absence of other types of concurrent delays, Contractor is not granted extension of Contract time, and classified as a non-compensable event. Where absent other types of delays, and having impact to Project completion, provide a Corrective Action Plan, identifying plan to mitigate delay, to the Contracting Officer.

(c) A Government-delay: Any delay event caused by the Government, or the risk of which has been assigned solely to the Government. If the Government-delay is on the longest path, in absence of other types of concurrent delays, the Contractor is granted an extension of Contract time, and classified as a compensable event.

(2) Use functional theory to analyze concurrent delays, where: Separate delay issues delay Project completion, do not necessarily occur at same time, rather occur within same monthly Schedule update period at minimum, or within same as-built period under review. If a combination of functionally concurrent delay types occurs, it is considered Concurrent Delay, which is defined in the following combinations:

(a) Government-delay concurrent with Contractor-delay: Excusable time extension, classified non-compensable event.

(b) Government-delay concurrent with force majeure delay: Excusable time extension, classified non-compensable event.

(c) Contractor-delay concurrent with force majeure delay: Excusable time extension, classified non-compensable event.

(3) A pacing delay, reacting to another delay (parent delay) equally or more critical than paced activity, must be identified prior to pacing. Contracting Officer will notify Contractor prior to pacing. Contractor must notify Contracting Officer prior to pacing. Notification must include identification of parent delay issue, estimated parent delay time period, paced activity(s) identity, and pacing reason(s). Pacing Concurrency is defined as follows:

(a) Government-delay concurrent with Contractor-pacing: Excusable time extension, classified compensable event.

(b) Contractor-delay concurrent with Government-pacing: Inexcusable time extension, classified non-compensable event.

1.10 FAILURE TO COMPLY

1.10.1 Failure to Submit Project Schedule and Updates

If the Contractor fails to submit the Project Schedule network diagrams and computer tabulations, the cash flow projections, written confirmation of subcontractors and suppliers, or electronic copies within the time prescribed, the Contracting Officer may stop all Work progress payments until the required submittals are provided. Acceptance of the Project Schedule is a condition for payment of any portion of the Contract amount.

1.10.2 Failure to Comply with Contracting Officer's Requirements

Failure to comply with the requirements of the Contracting Officer will be grounds for a determination by the Contracting Officer that the Contractor is not prosecuting the Work with such diligence as will insure completion within the time or times specified. Upon such determination, the Contracting Officer may terminate the Contractor's right to proceed with the Work, or any separable part thereof, in accordance with the applicable provisions of the Contract.

1.11 CORRESPONDENCE AND TEST REPORTS:

Correspondence (e.g., letters, Requests for Information (RFIs), e-mails, meeting minute items, Production and QC Daily Reports, material delivery tickets, photographs) must reference Schedule Activities that are being addressed. Test reports (e.g., concrete, soil compaction, weld, pressure) must reference Schedule Activities that are being addressed.

1.12 ADDITIONAL SCHEDULING REQUIREMENTS

Any references to additional scheduling requirements, including systems to be inspected, tested and commissioned, that are located throughout the remainder of the Contract Documents, are subject to all requirements of this section.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- End of Section --

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DIVISION 01 - GENERAL REQUIREMENTS

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SUBMITTAL PROCEDURES

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-- End of Section Table of Contents --

SECTION 01 33 00

SUBMITTAL PROCEDURES
11/21

PART 1 GENERAL

1.1 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.

FEDERAL ACQUISITION REGULATIONS (FAR)

FAR 52.236-21	Specifications and Drawings for Construction

1.2 SUMMARY

This section includes the general requirements of the Contractor pertaining to submissions to the Contracting Officer required under this Work.

1.2.1 Submittal Information

The Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work covered in the respective sections. Each submittal is to be complete and in sufficient detail to allow ready determination of compliance with contract requirements.

Units of weights and measures used on all submittals are to be the same as those used in the contract drawings.

1.2.2 Project Type

The Contractor's Quality Control Manager are to check and approve all items before submittal and stamp, sign, and date indicating action taken. Contractor's Quality Control Manager shall certify that each submittal is in compliance with Contract requirements prior to submitting to Contracting Officer. Proposed deviations from the Contract requirements are to be clearly identified. Include within submittals 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.

1.2.3 Constraints

Conform to provisions of this Specification, unless explicitly stated otherwise for submittals listed or specified in this Contract.

Submit complete submittals for each definable feature of the Work. At the same time, submit components of definable features that are interrelated as a system.

When acceptability of a submittal is dependent on conditions, items, or materials included in separate subsequent submittals, the submittal will be returned without review.

Approval of a separate material, product, or component does not imply approval of the assembly in which the item functions.

1.2.4 Submission of Submittals

Schedule and provide submittals requiring Government approval before acquiring the material or equipment covered thereby. Pick up and dispose of samples not incorporated into the work in accordance with manufacturer's Safety Data Sheets (SDS) and in compliance with existing laws and regulations.

1.3 DEFINITIONS

1.3.1 Submittal Descriptions (SD)

Submittal requirements are specified in the technical sections. Examples and descriptions of submittals identified by the Submittal Description (SD) numbers and titles follow:

SD-01 Preconstruction Submittals

Submittals that are required prior to commencing with the start of Work on Site or starting construction on certain elements of the Work.

Examples of Preconstruction Submittals include but are not limited to: schedules; forms; specialized work plans; Quality Control, Safety, and Environmental Protection plans; etc.

SD-03 Product Data

Preprinted material from the manufacturer demonstrating conformance to Specifications. This may include catalog data, illustrations, schedules, diagrams, performance charts, engineering data, test results, instructions, brochures, etc. illustrating size, physical appearance and other characteristics of materials, systems or equipment.

Samples of warranty language when the Contract requires extended product warranties.

SD-06 Test Reports

Report signed by authorized official of testing laboratory that a material, product or system identical to the material, product or system to be provided has been tested in accordance with specified requirements. Unless specified in another section, testing must have been within three years of date of Contract award for the Project.

Report that includes findings of a test required to be performed on an actual portion of the Work or prototype prepared for the Project before shipment to the Project Site.

Report that includes finding of a test made at the Project Site or on sample taken from the Project Site, on a portion of Work during or after installation.

SD-07 Certificates

Certificates may be required of products, installations, procedures, employee qualifications, workmanship, or as otherwise required. Certificates shall be in the form of a written letter, signed by the Owner or some other official with the authority to so obligate the Contractor, subcontractor, manufacturer, or vendor.

Certificates including statements from a manufacturer shall be printed on the manufacturer's letterhead and signed by responsible officials of manufacturer of product, system or material attesting that the product, system, or material meets Specification requirements. Must be dated after award of Project Contract and clearly name the Project.

Document required of Contractor, or of a manufacturer, supplier, installer or subcontractor through Contractor. The document purpose is to further promote the orderly progression of a portion of the Work by documenting procedures, acceptability of methods, or personnel qualifications.

Confined space entry permits

Text of posted operating instructions

SD-10 Operation and Maintenance Data

Data provided by the manufacturer, or the system provider, including manufacturer's help and product line documentation, necessary to maintain and install equipment, for operating and maintenance use by facility personnel.

Data required by operating and maintenance personnel for the safe and efficient operation, maintenance and repair of the item.

Data incorporated in an operations and maintenance manual or control system.

Comply with the requirements specified in Section 01 78 23 OPERATION AND MAINTENANCE DATA for O&M Data.

SD-11 Closeout Submittals

Documentation to record compliance with technical or administrative requirements or to establish an administrative mechanism.

Submittals required for Third Party Certification (TPC).

Special requirements necessary to properly close out a Construction Contract. For example, Record Drawings and As-Built Drawings. Also, submittal requirements necessary to properly close out a major phase of construction on a multi-phase Contract.

1.3.2 Approving Authority

Office or designated person authorized by the Contracting Officer to

approve the submittal.

1.3.3 Work

As used in this section, on-site and off-site construction required by Contract documents, including labor necessary to produce submittals, construction, materials, products, equipment, and systems incorporated or to be incorporated in such construction. In exception, excludes work to produce SD-01 submittals.

1.4 SUBMITTALS

Submit the following in accordance with this section.

SD-01 Preconstruction Submittals

Submittal Register

1.5 SUBMITTAL CLASSIFICATION

1.5.1 Government Approval

Government approval is required for extensions of design, critical materials, variations, equipment whose compatibility with the entire system must be checked, and other items as designated by the Government.

1.5.2 For Information Only

Submittals not requiring Government approval will be for information only.

1.6 FORWARDING SUBMITTALS REQUIRING GOVERNMENT APPROVAL

As soon as practicable after award of contract, and before procurement or fabrication, forward to the U.S. Coast Guard , submittals required in the technical sections of this specification, including shop drawings, product data and samples. In addition, forward a copy of the submittals to the Contracting Officer.

1.6.1 O&M Data

Submit data specified for a given item within 30 calendar days after the item is delivered to the contract site.

In the event the Contractor fails to deliver O&M data within the time limits specified, the Contracting Officer may withhold from progress payments 50 percent of the price of the items to which such O&M data apply.

1.7 PREPARATION

1.7.1 Transmittal Form

Use the U.S. Coast Guard standard transmittal form as the cover page for all submittals. This form is provided as "Attachment 6 - Submittal Transmittal Form" to these Specifications.

Each line item on the Submittal Register shall be a separate submittal. Individual submittals shall be listed as separate line item numbers on the

Submittal Transmittal Form. Only two line items shall be listed per form, and both items shall be from the same Specification section to avoid confusion.

The Contractor shall complete only the top portion of the form, electronically or with ball-point pen. **All forms must be signed by an authorized official of the Contractor, indicating that the Contractor has reviewed the submittal for conformance with all requirements of the Contract documents, in order to be accepted.**

Number each form, including resubmissions, in a sequential order based on the date submitted to the Contracting Officer.

Utilize the same Specification section, paragraph number, and description of material as listed in the Submittal Register when filling out the form. The form shall clearly identify the product being submitted. If more than one product or options for a product are included in the submittal, clearly indicate which product or option is being submitted by one of the following methods:

a. Highlight the product or option with a yellow highlighter.

b. Circle the product or option with a bold red circle or cloud.

c. Point to the product or option with a bold red arrow.

1.7.2 Submittal Media

The preferred format for submittals for both Approval and For-Information-Only is PDF delivered electronically to the Contracting Officer.

1.7.2.1 Electronic File Format

DO NOT compress ("zip") electronic files to be submitted to the U.S. Coast Guard. File compression is prohibited.

Only one submittal form cover page shall be included with each submission. Compile the submittal file as a single, complete document, to include the Transmittal Form described within. Name the electronic submittal file specifically according to its contents, and coordinate the file naming convention with the Contracting Officer.

Electronic files must be of sufficient quality that all information is legible. Use PDF as the electronic format, unless otherwise specified or directed by the Contracting Officer. Generate PDF files from original documents with bookmarks so that the text included in the PDF file is searchable and can be copied. If documents are scanned, optical character resolution (OCR) routines are required. Index and bookmark files exceeding 30 pages to allow efficient navigation of the file.

When required, the electronic file must include a valid electronic signature or a scan of a signature.

1.7.2.2 Hard Copy Format

If the Contractor prefers to mail hard copies, unless specifically noted otherwise under paragraph QUANTITY OF SUBMITTALS, or if requested by the Contracting Officer, provide the Contracting Officer with three complete

copies of the original submittal material with each submission. The Contractor will determine the total number of copies, depending upon the need to redistribute them to subcontractors and suppliers. The Government will keep two copies, and return the rest to the Contractor. Only one submittal form cover page shall be included with each submission.

1.7.2.3 Delivery

1.7.2.3.1 Electronic File Delivery

Electronic submittal packages less than 10 MB may be emailed directly to the intended recipients. Coordinate with Contracting Officer as required to establish secure file transfer protocol for electronic submittal packages larger than 10 MB.

1.7.2.3.2 Mailing

All hard copy submittals shall be sent directly to one of the following addresses:

USPS Mailing Address
ATTN: Intended Recipient
(to be assigned by KO)
CG Civil Engineering Unit Juneau
P.O. BOX 25517
Juneau, AK 99802-5517

FedEx or UPS Shipping Address:
ATTN: Intended Recipient
(to be assigned by KO)
CG Civil Engineering Unit Juneau
709 West 9th Street, Room 817
Juneau, Alaska 99801

1.7.3 Submittal Format

1.7.3.1 Format of SD-01 Preconstruction Submittals

When the submittal includes a document that is to be used in the Project, or is to become part of the Project record, other than as a submittal, do not apply the Contractor's approval stamp to the document itself, but to a separate sheet accompanying the document.

Provide data in the unit of measure used in the Contract documents.

1.7.3.2 Format for SD-02 Shop Drawings

Provide Shop Drawings not less than 8 1/2 by 11 inches nor more than 22 by 34 inches, except for full-size patterns or templates. Prepare Drawings to accurate size, with scale indicated, unless another form is required. Ensure Drawings are suitable for reproduction and of a quality to produce clear, distinct lines and letters, with dark lines on a white background.

a. Include the nameplate data, size, and capacity on Drawings. Also include applicable federal, military, industry, and technical society publication references.

b. Dimension Drawings, except diagrams and schematic Drawings. Prepare Drawings demonstrating interface with other trades to scale. Use the same unit of measure for Shop Drawings as indicated on the Contract Drawings. Identify materials and products for Work shown.

1.7.3.2.1 Drawing Identification

Include on each Drawing the Drawing title, number, date, and revision

numbers and dates, in addition to information required in paragraph IDENTIFYING SUBMITTALS.

Number Drawings in a logical sequence. Each Drawing is to bear the number of the submittal in a uniform location next to the title block. Place the Government Contract number in the margin, immediately below the title block, for each Drawing.

1.7.3.3 Format of SD-03 Product Data

Present product data submittals for each section as a complete, bound volume. Include a table of contents, listing the page and catalog item numbers for product data.

Indicate, by prominent notation, each product that is being submitted; indicate the Specification section number and paragraph number to which it pertains.

1.7.3.4 Format of SD-04 Samples

Furnish samples in the following sizes, unless otherwise specified or unless the manufacturer has prepackaged samples of approximately the same size as specified:

a. Sample of Equipment or Device: Full size.

b. Sample of Materials Less Than 2 by 3 inches: Built up to 8 1/2 by 11 inches.

c. Sample of Materials Exceeding 8 1/2 by 11 inches: Cut down to 8 1/2 by 11 inches and adequate to indicate color, texture, and material variations.

d. Sample of Linear Devices or Materials: 10 inch length or length to be supplied, if less than 10 inches. Examples of linear devices or materials are conduit and handrails.

e. Sample Volume of Nonsolid Materials: Pint. Examples of nonsolid materials are sand and paint.

f. Color Selection Samples: 2 by 4 inches. Where samples are specified for selection of color, finish, pattern, or texture, submit the full set of available choices for the material or product specified. Sizes and quantities of samples are to represent their respective standard unit.

g. Sample Panel: 4 by 4 feet.

h. Sample Installation: 100 square feet.

1.7.3.5 Format of SD-05 Design Data

Provide design data and certificates on 8 1/2 by 11 inch page size.

1.7.3.6 Format of SD-06 Test Reports

Provide reports on 8 1/2 by 11 inch page size in a complete bound volume.

By prominent notation, indicate each report in the submittal. Indicate

the Specification number and paragraph number to which each report pertains.

1.7.3.7 Format of SD-07 Certificates

Provide design data and certificates on 8 1/2 by 11 inch page size.

Provide a bound volume for submittals containing numerous pages.

1.7.3.8 Format of SD-08 Manufacturer's Instructions

Present manufacturer's instructions submittals for each section as a complete, bound volume. Include the manufacturer's name, trade name, place of manufacture, and catalog model or number on product data. Also include applicable federal, military, industry, and technical-society publication references. If supplemental information is needed to clarify the manufacturer's data, submit it as specified for SD-07 Certificates.

Submit the manufacturer's instructions before installation.

1.7.3.8.1 Standards

Where equipment or materials are specified to conform to industry or technical-society reference standards of organizations including but not limited to the American National Standards Institute (ANSI), ASTM International (ASTM), National Electrical Manufacturer's Association (NEMA), Underwriters Laboratories (UL), etc., submit proof of such compliance. The label or listing by the specified organization will be acceptable evidence of compliance. In lieu of the label or listing, submit a certificate from an independent testing organization, competent to perform testing, and approved by the Contracting Officer. State on the certificate that the item has been tested in accordance with the specified organization's test methods and that the item complies with the specified organization's reference standard.

1.7.3.9 Format of SD-09 Manufacturer's Field Reports

Provide reports on 8 1/2 by 11 inch page size in a complete bound volume.

By prominent notation, indicate each report in the submittal. Indicate the Specification number and paragraph number to which each report pertains.

1.7.3.10 Format of SD-10 Operation and Maintenance Data (O&M)

Comply with the requirements specified in Section 01 78 23 OPERATION AND MAINTENANCE DATA for O&M Data format.

1.7.3.11 Format of SD-11 Closeout Submittals

When the submittal includes a document that is to be used in the Project or is to become part of the Project record, other than as a submittal, do not apply the Contractor's approval stamp to the document itself, but to a separate sheet accompanying the document.

Provide data in the unit of measure used in the Contract documents.

1.7.4 Source Drawings for Shop Drawings

1.7.4.1 Source Drawings

The entire set of source Drawing files (DWG) will not be provided to the Contractor. Request the specific Drawing Number for the preparation of Shop Drawings. Only those Drawings requested to prepare Shop Drawings will be provided. These Drawings are provided only after award.

1.7.4.2 Terms and Conditions

Data contained on these electronic files must 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 is at the sole risk of the Contractor and without liability or legal exposure to the Government. The Contractor must 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 its subconsultants that may arise out of or in connection with the use of these electronic files. The Contractor must, 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 source Drawing files are not construction documents. Differences may exist between the source Drawing files and the corresponding construction documents. The Government makes no representation regarding the accuracy or completeness of the electronic source Drawing files, nor does it make representation to the compatibility of these files with the Contractor hardware or software. The Contractor is responsible for determining if any conflict exists. In the event that a conflict arises between the signed and sealed construction documents prepared by the Government and the furnished source Drawingfiles, the signed and sealed construction documents govern. Use of these source Drawing files does not relieve the Contractor of the 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 or modifies these electronic source Drawing files for use in producing construction data related to this Contract, remove all previous indication of ownership (seals, logos, signatures, initials and dates).

1.8 QUANTITY OF SUBMITTALS

1.8.1 Number of SD-02 Shop Drawing Copies

Unless otherwise specified, submit two copies of submittals of Shop Drawings requiring review and approval by a QC organization. Submit three copies of Shop Drawings requiring review and approval by the Contracting Officer.

1.8.2 Number of SD-04 Samples

a. Submit two samples, or two sets of samples showing the range of variation, of each required item. One approved sample or set of samples will be retained by the approving authority and one will be returned to the Contractor.

b. Submit one sample panel or provide one sample installation where

directed. Include components listed in the technical section or as directed.

c. Submit one sample installation, where directed.

d. Submit one sample of nonsolid materials.

1.8.3 Number of SD-05 Design Data Copies

Submit in compliance with quantity requirements specified for Shop Drawings.

1.8.4 Number of SD-10 Operation and Maintenance Data Copies

Submit three copies complying with the requirements specified in Section 01 78 23 OPERATION AND MAINTENANCE DATA.

1.9 INFORMATION ONLY SUBMITTALS

Submittals for information only must be certified by the QC manager and submitted to the Contracting Officer. Approval of the Contracting Officer is not required on information only submittals. The Contracting Officer will mark "receipt acknowledged" on submittals for information and will return only the transmittal cover sheet to the Contractor. Normally, submittals for information only will not be returned. However, the Government reserves the right to return unsatisfactory submittals and 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; will not prevent the Contracting Officer from requiring removal and replacement of nonconforming material incorporated in the Work; and does not relieve the Contractor of the requirement to furnish samples for testing by the Government laboratory or for check testing by the Government in those instances where the technical Specifications so prescribe.

1.10 PROJECT SUBMITTAL REGISTER

A sample Project Submittal Register showing items of equipment and materials for when submittals are required by the Specifications is provided as "Attachment 7 - Submittal Register" to these Specifications. The Contractor is ultimately responsible for ensuring all necessary submittals are included in the Submittal Register and shall submit proposed revisions to the Contracting Officer for approval.

1.10.1 Submittal Management

Prepare and maintain a submittal register, as the Work progresses. Do not change data that is output in columns (c), (d), and (e) as delivered by Government; retain data that is output in columns (a), (g), (h), and (i) as approved. As an attachment, provide a submittal register showing items of equipment and materials for which submittals are required by the Specifications. This list may not be all-inclusive and additional submittals may be required.

Column (c): Lists Specification section in which submittal is required.

Column (d): Lists each submittal description (SD Number. and type, e.g., SD-02 Shop Drawings) required in each Specification

section.

Column (e): Lists one principal paragraph in each Specification section where a material or product is specified. This listing is only to facilitate locating submitted requirements. Do not consider entries in column (e) as limiting the Project requirements.

Column (f): This column is not used by the U.S. Coast Guard, leave blank or insert a dash, not used, N/A, etc.

Thereafter, the Contractor is to track all submittals by maintaining a complete list, including completion of all data columns and all dates on which submittals are received by and returned by the Government.

1.10.2 Preconstruction Use of Submittal Register

Submit the submittal register within 15 calendar days after receipt of Notice of Construction Contract Award. Include the QC plan and the Project Schedule. Verify that all submittals required by the Contract/Task Order are listed and add missing submittals. Coordinate and complete the following fields on the register submitted with the QC plan and the Project Schedule:

Column (a) Activity Number: Activity number from the Project Schedule.

Column (g) Contractor Submit Date: Scheduled date for the approving authority to receive submittals.

Column (h) Contractor Approval Date: Date that Contractor needs approval of submittal.

Column (i) Contractor Material: Date that Contractor needs material delivered to Contractor control.

1.10.3 Contractor Use of Submittal Register

Update the following fields with each submittal throughout the Contract.

Column (b) Transmittal Number: List of consecutive, Contractor-assigned numbers.

Column (j) Action Code (k): Date of action used to record Contractor's review when forwarding submittals to QC.

Column (l) Date submittal transmitted.

Column (q) Date approval was received.

1.10.4 Approving Authority Use of Submittal Register

Update the following fields:

Column (b) Transmittal Number: List of consecutive, Contractor-assigned numbers.

Column (l) Date submittal was received.

Column (m) through (p) Dates of review actions.

Column (q) Date of return to Contractor.

1.10.5 Action Codes

"A" - "Approved as submitted"; "Accepted"; "Agreed"

"AN" - "Approved as noted"

"I" - "For Information Only"

"RR" - "Disapproved as submitted"; "Revise and Resubmit"

"CR" - "Check and Resolve"

"NR" - "Not Reviewed"

"RA" - "Receipt Acknowledged"

1.10.6 Delivery of Copies

Maintain an up-to-date Submittal Register at the Project Site.

Submit an updated electronic copy of the submittal register to the Contracting Officer with each invoice request.

Provide an updated Submittal Register monthly regardless of whether an invoice is submitted.

1.11 VARIATIONS

Variations from Contract requirements require Contracting Officer approval pursuant to Contract Clause FAR 52.236-21 Specifications and Drawings for Construction, and will be considered where advantageous to the Government.

1.11.1 Considering Variations

Discussion of variations with the Contracting Officer before submission will help ensure that functional and quality requirements are met and minimize rejections and resubmittals. When contemplating a variation that results in lower cost, consider submission of the variation as a Value Engineering Change Proposal (VECP).

Specifically point out variations from Contract requirements in transmittal letters. Failure to point out variations may cause the Government to require rejection and removal of such Work at no additional cost to the Government.

1.11.2 Proposing Variations

If a submission includes a request for a variation from or change in the Contract requirements, the following statement shall be provided in the comments section of the Submittal Transmittal Form, and the statement shall be highlighted in yellow:

"THIS SUBMITTAL REFLECTS A REQUEST FOR A VARIATION FROM OR A CHANGE IN THE REQUIREMENTS OF THE PROJECT DRAWINGS AND/OR SPECIFICATIONS."

When proposing variation, include a written request to the Contracting Officer, with documentation of the nature and features of the variation and why the variation is desirable and beneficial to Government. Include the DOR's written analysis and approval. If lower cost is a benefit, also include an estimate of the cost savings. In addition to documentation required for variation, include the submittals required for the item. Clearly mark the proposed variation in all documentation.

1.11.3 Warranting that Variations are Compatible

When delivering a variation for approval, the Contractor warrants that this Contract has been reviewed to establish that the variation, if incorporated, will be compatible with other elements of Work.

1.11.4 Review Schedule Extension

In addition to the normal submittal review period, a period of 14 days will be allowed for the Government to consider submittals with variations.

1.12 SCHEDULING

Schedule and submit concurrently product data and Shop Drawings covering component items forming a system or items that are interrelated. Submit pertinent certifications at the same time. No delay damages or time extensions will be allowed for time lost in late submittals. .

a. Coordinate scheduling, sequencing, preparing, and processing of submittals with performance of Work so that Work will not be delayed by submittal processing. The Contractor is responsible for additional time required for Government reviews resulting from required resubmittals. The review period for each resubmittal is the same as for the initial submittal.

b. Submittals required by the Contract documents are listed on the submittal register. If a submittal is listed in the submittal register but does not pertain to the Contract Work, the Contractor is to include the submittal in the register and annotate it "N/A" with a brief explanation. Approval by the Contracting Officer does not relieve the Contractor of supplying submittals required by the Contract documents but that have been omitted from the register or marked "N/A."

c. Resubmit the submittal register and annotate it monthly with actual submission and approval dates. When all items on the register have been fully approved, no further resubmittal is required.

1.12.1 Government Review Period

Except as specified otherwise, the Government shall have 14 calendar days to review each submittal, or resubmittal, based on the day the submittal is received and logged in by the Contracting Officer. Each Submittal Transmittal Form will be stamped with the date received. The period of review for submittals with Contracting Officer approval begins when the Government receives the submittal from the Contractor.

1.13 GOVERNMENT APPROVING AUTHORITY

The Contracting Officer is the only approving authority for submittals,

the Contracting Officer will:

a. Stamp the Submittal Transmittal Form with the date received.

b. Review submittals for approval within the scheduling period specified and only for conformance with Project design concepts and compliance with Contract documents.

c. Identify returned submittals with one of the actions defined in paragraph REVIEW NOTATIONS and with comments and markings appropriate for the action indicated.

Upon completion of review of submittals, stamp and date the submittal response.

1.13.1 Review Notations

Submittals will be returned to the Contractor with the following notations:

a. Submittals marked "approved" or "accepted" authorize proceeding with the Work covered.

b. Submittals marked "approved as noted" or "approved, except as noted, resubmittal not required," authorize proceeding with the Work covered provided that the Contractor takes no exception to the corrections.

c. Submittals marked "rejected," "not approved," "disapproved," or "revise and resubmit" indicate incomplete submittal or noncompliance with the Contract requirements or design concept. Resubmit with appropriate changes along with a written response, in **bold** font to each review comment. Do not proceed with Work for this item until the resubmittal is approved.

d. Submittals marked "not reviewed" indicate that the submittal has been previously reviewed and approved, is not required, does not have evidence of being reviewed and approved by Contractor, or is not complete. A submittal marked "not reviewed" will be returned with an explanation of the reason it is not reviewed. Resubmit submittals returned for lack of review by Contractor or for being incomplete, with appropriate action, coordination, or change.

e. Submittals marked "receipt acknowledged" indicate that submittals have been received by the Government. This applies only to "information-only submittals" as previously defined.

1.14 DISAPPROVED SUBMITTALS

Make corrections required by the Contracting Officer. If the Contractor considers any correction or notation on the returned submittals to constitute a change to the Contract Drawings or Specifications, give notice to the Contracting Officer as required under the FAR clause titled CHANGES. The Contractor is responsible for the dimensions and design of connection details and the construction of Work. Failure to point out variations may cause the Government to require rejection and removal of such Work at the Contractor's expense.

If changes are necessary to submittals, make such revisions and resubmit

in accordance with the procedures above. No item of Work requiring a submittal change is to be accomplished until the changed submittals are approved.

The Government shall not be responsible for delays in construction schedule due to the rejection of incomplete submittals, or rejection of submittals that do not demonstrate compliance with the requirements of the Contract Documents.

1.15 APPROVED SUBMITTALS

The Contracting Officer's approval of submittals is not to be construed as a complete check, and indicates only that

Approval or acceptance by the Government for a submittal does not relieve the Contractor of the responsibility for meeting the Contract requirements or for any error that may exist, because under the Quality Control (QC) requirements of this Contract, the Contractor is responsible for ensuring information contained with in each submittal accurately conforms with the requirements of the Contract documents.

Submittals are only approved when the Submittal Transmittal Form is appropriately completed and signed by the Contracting Officer. There is no concept of verbal approval for submittals.

After submittals have been approved or accepted by the Contracting Officer, no resubmittal for the purpose of substituting materials or equipment will be considered unless accompanied by an explanation of why a substitution is necessary.

1.16 APPROVED SAMPLES

Approval of a sample is only for the characteristics or use named in such approval and is not be construed to change or modify any Contract requirements. Before submitting samples, provide assurance that the materials or equipment will be available in quantities required in the Project. No change or substitution will be permitted after a sample has been approved.

Match the approved samples for materials and equipment incorporated in the Work. If requested, approved samples, including those that may be damaged in testing, will be returned to the Contractor, at its expense, upon completion of the Contract. Unapproved samples will also be returned to the Contractor at its expense, if so requested.

Failure of any materials to pass the specified tests will be sufficient cause for refusal to consider, under this Contract, any further samples of the same brand or make as that material. The Government reserves the right to disapprove any material or equipment that has previously proved unsatisfactory in service.

Samples of various materials or equipment delivered on the Site or in place may be taken by the Contracting Officer for testing. Samples failing to meet Contract requirements will automatically void previous approvals. Replace such materials or equipment to meet Contract requirements.

1.17 WITHOLDING OF PAYMENT

Payment for materials incorporated in the Work will not be made if

required approvals have not been obtained.

1.18 Contractor Certification Stamp (Prior to Submittal to Government)

Certify the submittal data as follows on the U.S. Coast Guard Submittal Transmittal Form: "I certify that the above submitted items had been reviewed in detail and are correct and in strict conformance with the Contract Drawings and Specifications except as otherwise stated.

_____NAME OF CONTRACTOR _____ SIGNATURE OF CONTRACTOR

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

-- End of Section --

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01 42 00

SOURCES FOR REFERENCE PUBLICATIONS

11/21

-- End of Section Table of Contents --

SECTION 01 42 00

SOURCES FOR REFERENCE PUBLICATIONS
11/21

PART 1 GENERAL

1.1 REFERENCES

Various publications are referenced in other sections of the Specifications to establish requirements for the Work. The reference publications form a part of this Specification to the extent referenced. These references are identified in each section by basic designation only within the text, and by document number, date and title in the REFERENCES article. The document number used in the citation is the number assigned by the standards producing organization (e.g., ASTM B564 Standard Specification for Nickel Alloy Forgings). However, when the standards producing organization has not assigned a number to a document, an identifying number has been assigned for reference purposes. **Unless directed otherwise by the Contracting Officer, use the latest editions of all referenced publications in effect at the time of the Project Contract Award.**

1.2 ORDERING INFORMATION

The addresses of the standards publishing organizations whose documents are referenced in other sections of these specifications are listed below, and if the source of the publications is different from the address of the sponsoring organization, that information is also provided.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO)
444 North Capital Street, NW, Suite 249
Washington, DC 20001
Ph: 202-624-5800
Fax: 202-624-5806
E-Mail: info@aashto.org
Internet: https://www.transportation.org/

AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE)
1801 Alexander Bell Drive
Reston, VA 20191
Ph: 800-548-2723; 703-295-6300
Internet: https://www.asce.org/

ASTM INTERNATIONAL (ASTM)
100 Barr Harbor Drive, P.O. Box C700
West Conshohocken, PA 19428-2959
Ph: 610-832-9500
Fax: 610-832-9555
E-mail: service@astm.org
Internet: https://www.astm.org/

INTERNATIONAL CODE COUNCIL (ICC)
500 New Jersey Avenue, NW
6th Floor, Washington, DC 20001
Ph: 800-786-4452 or 888-422-7233
Fax: 202-783-2348
E-mail: order@iccsafe.org
Internet: https://www.iccsafe.org/

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
1 Batterymarch Park
Quincy, MA 02169-7471
Ph: 800-344-3555
Fax: 800-593-6372
Internet: https://www.nfpa.org

U.S. DEPARTMENT OF TRANSPORTATION (DOT)
1200 New Jersey Ave., SE
Washington, DC 20590
Ph: 202-366-4000
Internet: https://www.transportation.gov/

U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)
1200 Pennsylvania Avenue, N.W.
Washington, DC 20004
Ph: 202-564-4700
Internet: https://www.epa.gov
--- Some EPA documents are available only from:
National Technical Information Service (NTIS)
5301 Shawnee Road
Alexandria, VA 22312
Ph: 703-605-6060 or 1-800-363-2068
Fax: 703-605-6880
TDD: 703-487-4639
E-mail: info@ntis.gov
Internet: https://www.ntis.gov/

U.S. FEDERAL AVIATION ADMINISTRATION (FAA)
Order for sale documents from:
Superintendent of Documents
U.S. Government Publishing Office (GPO)
732 N. Capitol Street, NW
Washington, DC 20401
Ph: 202-512-1800 or 866-512-1800
Bookstore: 202-512-0132
Internet: https://www.gpo.gov/
Order free documents from:
U.S. Department of Transportation
Federal Aviation Administration
800 Independence Avenue, SW
Washington, DC 20591
Ph: 866-835-5322
Internet: https://www.faa.gov/

U.S. FEDERAL HIGHWAY ADMINISTRATION (FHWA)
1200 New Jersey Ave., SE
Washington, DC 20590
Ph: 202-366-4000
E-mail: ExecSecretariat.FHWA@dot.gov

Internet: https://www.fhwa.dot.gov/
Order from:
Superintendent of Documents
U.S. Government Publishing Office (GPO)
732 N. Capitol Street, NW
Washington, DC 20401
Ph: 202-512-1800 or 866-512-1800
Bookstore: 202-512-0132
Internet: https://www.gpo.gov/

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)
8601 Adelphi Road
College Park, MD 20740-6001
Ph: 866-272-6272
Internet: https://www.archives.gov/
Order documents from:
Superintendent of Documents
U.S. Government Publishing Office (GPO)
732 N. Capitol Street, NW
Washington, DC 20401
Ph: 202-512-1800 or 866-512-1800
Bookstore: 202-512-0132
Internet: https://www.gpo.gov/

ALASKA ADMINISTRATIVE CODE (AAC)
Internet: http://www.legis.state.ak.us/basis/aac.asp

CITY OF KODIAK (KODIAK)
Public Works
2410 Mill Bay Road
Kodiak, AK 99615
Ph: 907-486-8065
Fax: 907-486-8066
Internet: http://www.city.kodiak.ak.us/publicworks

FEDERAL ACQUISITION REGULATIONS (FAR)
Internet: https://www.acquisition.gov/browsefar

RSMeans (RSM)
1099 Hingham St, Suite 201
Rockland, MA 20005
Ph: 800-448-8182
Internet: https://www.rsmeans.com/

U.S. COAST GUARD BASE KODIAK (BASE KODIAK)
5th Street
Kodiak Station, AK 99619
Ph: 907-487-5444
E-mail: d17-dg-webmaster@uscg.mil
Internet: https://www.dcms.uscg.mil/

PART 2 PRODUCTS

Not used

PART 3 EXECUTION

Not used

-- End of Section --

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01 45 00

QUALITY CONTROL

08/21

ATTACHMENTS:

-- End of Section Table of Contents --

SECTION 01 45 00

QUALITY CONTROL
08/21

PART 1 GENERAL

1.1 WORK COVERED

Quality Control is the responsibility of the Contractor. Establish a method for monitoring the Work to ensure compliance with Contract requirements. Quality Control will be administered under Contract Clause FAR 52.246-12, Inspection of Construction. Provide a separate dedicated, full time, Quality Control Manager on-site dedicated to insuring conformance with the Contract requirements. The Quality Control Manager is defined by this section as the Contractor's Quality Control Manager. The Quality Control Manager must keep separate files on the Quality Assurance and Quality Control actions taken. These files should include internal non-compliance records, verification of material compliance with the approved submittals, verification of compliance with testing requirements, and remedial direction provided for non-compliant Work. These files must be made available to the Contracting Officer for review upon request. Failure to perform Quality Control will result in removal of the Quality Control Manager, and the Contractor must provide a replacement at no cost to the Government.

Submit your management system indicating the Quality Control Manager's reporting role that demonstrates the Quality Control Manager's performance reviews are separate from the specific Project profitability and schedule and are tied to corporate goals of safety and a quality product.

The objective is to guarantee performance of the Work to the required Contract standards for materials, workmanship, construction, finish, functional performance and identification. Quality control requirements apply to both on-site and off-site fabrication, all construction materials and operations, and specifically includes all required inspections, tests and submittals.

Note: For an activity to be considered one-hundred percent complete the required testing must be complete and the Work must fully comply with the Contract requirements.

1.2 REFERENCES

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

FEDERAL ACQUISITION REGULATIONS (FAR)

FAR 52.211-10	Commencement, Prosecution, and Completion of Work
FAR 52.246-12	Inspection of Construction

1.3 PAYMENT

Separate payment will not be made for providing and maintaining an effective Quality Control program. Include all associated costs in the applicable Pricing Schedule item.

1.4 SUBMITTALS

Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Contractor Quality Control Plan

SD-06 Test Reports

Verification Statement

SD-07 Certificates

Laboratory Accreditation And Validation

SD-11 Closeout Submittals

Field Testing Log

1.4.1 Submittal Transmittals

In accordance with Section 01 33 00 SUBMITTAL PROCEDURES, all submittals require a submittal transmittal form and all submittal transmittal forms must be signed by an authorized official of the Contractor, indicating that the Contractor has reviewed the submittal for conformance with all requirements of the Contract documents, in order to be accepted.

PART 2 PRODUCTS

A copy of all approved product submittals shall be kept and maintained on-site by the Contractor. Products delivered on-site shall be the same as those indicated on approved submittals. Submittals shall be made available to the Contracting Officer upon request.

Before incorporation into the Work, the Contractor shall inspect all products to ensure conformance with the requirements of the Contract Drawings and Specifications.

PART 3 EXECUTION

3.1 GENERAL REQUIREMENTS

Establish and maintain an effective Quality Control (QC) system that complies with FAR 52.246-12 Inspection of Construction. QC consist of plans, procedures, and organization necessary to produce an end product which complies with the Contract requirements. The QC system covers all construction operations, both on-site and off-site, and be keyed to the proposed construction sequence. The Project Superintendent will be held responsible for the quality of Work and is subject to removal by the Contracting Officer for non-compliance with the quality requirements

specified in the Contract. In this context the highest level manager responsible for the overall construction activities at the Site, including quality and production is the Project Superintendent. The Project Superintendent maintains a physical presence at the Site at all times and is responsible for all construction and related activities at the Site, except as otherwise acceptable to the Contracting Officer.

3.2 CONTRACTOR QUALITY CONTROL PLAN

The Quality Control Plan shall clearly define the intended method to maintain Quality Control during construction phases of this Contract. Indicate the prior experience of all key individuals responsible for Quality Control. Describe the intended flow of information and key check points that will provide the quality on this Project.

Submit at least 7 days prior to the Pre-Construction Conference, the Contractor Quality Control Plan proposed to implement the requirements FAR 52.246-12 Inspection of Construction.

3.2.1 Content of the Quality Control Plan

Include, as a minimum, the following to cover all construction-operations, both on-site and off-site, including Work by subcontractors fabricators, suppliers and purchasing agents:

a. A description of the Quality Control organization, including a chart showing lines of authority and acknowledgment that the Quality Control staff will implement the three phase control system for all aspects of the Work specified. Include a Quality Control Manager that reports to the Project Superintendent.

b. The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a Quality Control function.

c. A copy of the letter to the Quality Control Manager signed by an authorized official of the firm which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the Quality Control Manager, including authority to stop Workwhich is not in compliance with the Contract. Letters of direction to all other various Quality Control representatives outlining duties, authorities, and responsibilities will be issued by the Quality Control Manager. Furnish copies of these letters to the Contracting Officer.

d. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, off-site fabricators, suppliers, and purchasing agents. These procedures must be in accordance with Section 01 33 00 SUBMITTAL PROCEDURES.

e. Control, verification, and acceptance testing procedures for each specific test to include the test name, Specification paragraph requiring test, feature of Work to be tested, test frequency, and person responsible for each test. (Laboratory facilities approved by the Contracting Officer are required to be used.)

f. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.

g. Procedures for tracking construction deficiencies from identification through acceptable corrective action. Establish verification procedures that identified deficiencies have been corrected.

h. Reporting procedures, including proposed reporting formats.

i. A list of the definable features of Work. A definable feature of Work is a task which is separate and distinct from other tasks, has separate control requirements, and is identified by different trades or disciplines, or it is Work by the same trade in a different environment. Although each section of the Specifications can generally be considered as a definable feature of Work, there are frequently more than one definable features under a particular section. This list will be agreed upon during the coordination meeting.

3.2.2 Acceptance

Acceptance of the Contractor's Quality Control Plan is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. The Government reserves the right to require the Contractor to make changes in the Contractor Quality Control Plan and operations including removal of personnel, as necessary, to obtain the quality specified.

3.2.3 Notification of Changes

After acceptance of the Quality Control Plan, notify the Contracting Officer in writing of any proposed change, including changes in the QC organization personnel, a minimum of seven calendar days prior to a proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

3.2.3.1 Requests for Variations

Variations are changes to Contractor's approved design or construction processes that do not affect compliance with meeting terms of the Contract or request for proposal. Complete the Request for Variations form and submit to the Contracting Officer. This form is provided as "Attachment 8 - Request for Variations Form" to these Specifications. Provide a record of all variations to ensure the as-built documents are accurate.

3.2.3.2 Requests for Deviations

Deviations are requests for changes to the Contract terms that must be authorized by the Contracting Officer and a formal change order issued before they may be implemented. Complete the Request for Deviations form and submit to the Contracting Officer for review and approval. This form is provided as "Attachment 9 - Request for Deviations Form" to these Specifications. Provide a record of all deviations to ensure the as-built documents are accurate.

3.3 COORDINATION MEETING

Before the start of construction, and prior to acceptance by the Government of the Quality Control Plan, meet with the Contracting Officer via teleconferenceand discuss the Contractor's Quality Control system. Submit the Quality Control Plan a minimum of 3 calendar days prior to the

Coordination Meeting. During the meeting, a mutual understanding of the system details must be developed, including the forms for recording the Quality Control operations,, control activities, testing, administration of the system for both on-site and off-site Work, and the interrelationship of Contractor's Management and control with the Government's Quality Assurance. Minutes of the meeting will be prepared by the Contractor, and shall be signed by both the Contractor and the Contracting Officer and will become a part of the Contract file. There can be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings or address deficiencies in the Quality Control system or procedures which can require corrective action by the Contractor.

3.4 QUALITY CONTROL ORGANIZATION

3.4.1 Personnel Requirements

The Contractor shall utilize skilled labor applicable to the trade being performed. Ensure required qualifications or certifications are current and maintained.

The requirements for the Quality Control organization are a Project Manager, Superintendent, Safety Officer, Quality Control Manager, and sufficient number of additional qualified personnel to ensure safety and Contract compliance. The Safety Officer reports directly to a senior Project (or corporate) official independent from the Quality Control Manager. The Safety Officer will also serve as a member of the Quality Control Staff Personnel identified in the technical provisions as requiring specialized skills to assure the required Work is being performed properly will also be included as part of the Quality Control organization. The Contractor's Quality Control staff maintains a presence at the Site at all times during progress of the Work and have complete authority and responsibility to take any action necessary to ensure Contract compliance. The Quality Control staff will be subject to acceptance by the Contracting Officer. Provide adequate office space, filing systems and other resources as necessary to maintain an effective and fully functional Quality Control organization. Promptly complete and furnish all letters, material submittals, Shop Drawing submittals, schedules and all other Project documentation to the Quality Control organization. The Quality Control organization is responsible to maintain these documents and records at the Site at all times, except as otherwise acceptable to the Contracting Officer.

The Government reserves the right to accept or reject any team member substitution after award of this Contract. Changes to the require Contracting Officer's approval.

3.4.2 Project Manager (PM)

The Project Manager must have experience managing at least 3 prior Design-Bid-Build Projects of a similar size and complexity as this Project as the Project Manager. The PM must demonstrate prior experience managing both design and construction Contracts as direct management in Design-Bid-Build Contracts.

3.4.3 Superintendent

The superintendent must have experience managing at least 3 prior Design-Bid-Build Projects of a similar size and complexity as this Project

as a superintendent.

3.4.4 Quality Control Manager

Identify as Quality Control Manager an individual within the on-site Work organization that is responsible for overall management of Quality Control and has the authority to act in all Quality Control matters for the Contractor. The Quality Control Manager is required to be a construction person with a minimum of 3 years in related Work. This Quality Control Manager is on the Site at all times during construction and is employed by the prime Contractor. The Quality Control Manager is assigned no other duties and may not be the same person as the Superintendent or Project Manager. Identify in the plan an alternate to serve in the event of the Quality Control Manager's absence. The requirements for the alternate are the same as the Quality Control Manager.

3.4.5 Quality Control Personnel

In addition to Quality Control personnel specified elsewhere in the Contract, provide as part of the Quality Control organization specialized personnel to assist the Quality Control Manager for the following areas: electrical . These individuals or specialized technical companies are directly employed by the prime Contractor and can not be employed by a supplier or subcontractor on this Project ; be responsible to the Quality Control Manager; be physically present at the Project Site during Work on the specialized peronnel's areas of responsibility; have the necessary education or experience in accordance with the experience matrix listed herein. These individuals can perform other duties but need to be allowed sufficient time to perform the specialized personnel's assigned Quality Control duties as described in the Quality Control Plan.

Experience Matrix	
Area	Qualifications
Civil	Graduate Civil Engineer or Construction Manager with 2 years experience in the type of Work being performed on this Project or technician with 5 yrs related experience
Mechanical	Graduate Mechanical Engineer with 2 yrs experience or person with 5 years of experience supervising mechanical features of Work in the field with a construction company
Electrical	Graduate Electrical Engineer with 2 years related experience or person 5 years of experience supervising electrical features of Work in the field with a construction company

Experience Matrix	
Area	Qualifications
Structural	Graduate Civil Engineer (with Structural Track or Focus) or Construction Manager with 2 years experience or person 5 years of experience supervising structural features of Work in the field with a construction company
Architectural	Graduate Architect with 2 years experience or person with 5 years related experience
Environmental	Graduate Environmental Engineer with 3 years experience
Submittals	Submittal Clerk with 1 year experience
Occupied Family Housing	Person, customer relations type, coordinator experience
Concrete, Pavements and Soils	Materials Technician with 2 years experience for the appropriate area
Testing, Adjusting and Balancing (TAB) Personnel	Specialist must be a member of AABC or an experienced technician of the firm certified by the NEBB

3.4.6 Additional Requirement

The following are the requirements for specific parts of the Work:

a. Technicians inspecting concrete delivered to the Project Site must be certified by the American Concrete Institute

b. Manufacturer's representatives must present documentation of their delegated authority

c. Welders, welding operations, and completed welds must be inspected by an AWS Certified Welding Inspector.

The Construction Quality Management Training certificate expires after 5 years. If the Quality Control Manager's certificate has expired, retake the course to remain current.

3.4.7 Organizational Changes

Maintain the Quality Control staff at full strength at all times. When it is necessary to make changes to the Quality Control staff, revise the Quality Control Plan to reflect the changes and submit the changes to the

Contracting Officer for acceptance.

3.5 SUBMITTALS AND DELIVERABLES

Submittals, shall comply with the requirements in Section 01 33 00 SUBMITTAL PROCEDURES. The Quality Control organization is responsible for certifying that all submittals and deliverables are in compliance with the Contract requirements.

The Contractor may also be required to prepare an Air Monitoring Plan as part of the Work. The Air Monitoring plan shall include procedures in accordance with OSHA requirements for conducting personal air monitoring for Contractor and their subcontractor personnel that may be potentially exposed to contaminated soils and water.

3.5.1 Contractor's Daily Construction Reports

The Contractor shall fill out Daily Report using Form CM-03. Sample forms are provided as "Attachment 10 - Daily Report Forms" to these Specifications. Submit copies of the report to the Contracting Officer by 10:00 a.m. on the first work day after the day the Work was performed. E-mail a copy directly to the Contracting Officer. Include the description and activity number from the accepted progress schedule, and the actual start and finish dates for the Work performed. Sample forms will be provided to the Contractor electronically.

3.5.2 Contractor's Weekly Contruction Reports

The Contractor shall fill out Weekly Construction Reports using Form CM-02. Sample forms are provided as "Attachment 11 - Weekly Construction Report Forms" to these Specifications. This report should indicate any specific items completed in the week. The description should be general and indicate any issues with the Work that week. Insert a picture of any significant progress of an activity item. Submit copies of the report to the Contracting Officer by 10:00 a.m. of the Monday following the work week. E-mail a copy directly to the Contracting Officer.

3.5.3 Test Results

3.5.3.1 Test Reports

Record results of all tests, inspections, both passing and failing, on the Quality Control report and the Daily Construction Report, and submit separate reports for, each field test, inspection, or sampling conducted.

Test Reports, including but not limited to Factory Test Reports, Field Test Reports, and Field Inspection Reports, must comply with Section 01 33 00 SUBMITTAL PROCEDURES as well as the applicable technical Specification Section for the component of the Work being inspected or tested. In addition, the report shall cite the Contract requirements, the test, inspection, or analysis procedures used, and the actual test results. For each report, stamp conspicuously on the cover sheet in large red letters "CONFORMS" or "DOES NOT CONFORM." Reports must be signed by the authorized representative of the testing laboratory. Use Form CM-08 provided as "Attachment 12 - Test Report Form" to these Specifications. Indicate the following information on the report:

a. Specification Section and Paragraph Number

b. Name of the Test, Inspection, or Sampling

c. Location of Test. Inspection, or Sampling (provide sketch if necessary to clearly document location at the Site)

d. Name of Inspector/Technician

e. Name of Laboratory, if applicable

f. Date and Time of the Test, Inspection, or Sampling

g. Minimum Requirements/Acceptable Test, Inspection, or Sampling Results

h. Actual Test, Inspection, or Sampling Results

i. Repeated Inspections, Tests, Inspections, or Sampling

j. Statement indicating whether or not the Work meets the specified requirement

If approved by the Contracting Officer, actual Test Reports are submitted later with a reference to the test number and date taken. Provide an information copy of tests performed by an off-site or commercial test facility directly to the Contracting Officer. Failure to submit timely test reports as stated results in nonpayment for related Work performed and disapproval of the test facility for this Contract.

3.5.4 Field Testing Log

Review the Project documents and prepare a list of the required field tests. Submit this annotated log with your other Preconstruction submittals. Include all required Laboratory Accreditation and Validation Certificates. Tie the testing into the Project Schedule Baseline; refer to the instructions on the reverse side of the Form CD-24, Testing Log provided as "Attachment 13 - Testing Log" to these Specifications. The Testing Log shall be signed by your Quality Control Manager

Consider this list an As-Built for the Contract and maintain it daily as a log of testing. In the event of a discrepancy between the list and the Contract documents, the Contract documents take precedence. Submit the As-Built test log at Final Inspection. At a minimum, the log shall include the following information for each test, inspection, or sampling:

a. Reference to all Daily Construction Reports and Quality Control Reports with associated Test, Inspection, or Sampling Data

b. Specification Section and Paragraph Number

c. Name and Type of Test, Inspection, or Sampling

d. Results of Test, Inspection, or Sampling

e. Statement of Conformance or Nonconformance with Contract Requirements

f. Quality Control Manager's Signature

3.5.5 Nonconformance Notice

Non-compliant Work on any activity can be halted by the Contracting

Officer. Payment shall not be made for an activity that is non-compliant. A Notice of Non-Compliance on Form CM-12 will be issued for non-compliant Work. The form should be issued by the Contractor's Quality Control Manager as an indication he/she is performing their duties correctly. It may also be issued by the Contracting Officer. In such cases there will be two notices of non-compliance issued: one for the non-compliant activity Work; and one for non-compliant Quality Assurance and/or Quality Control. A sample form is provided with these Specifications as "Attachment 14 - Notice of Non-Compliance."

Payment shall not be made on any portion of the Work for which a nonconformance notice has been issued and the Work not corrected to the satisfaction of the Contracting Officer when a notice is issued by the Contracting Officer documenting that the Work, or some portion thereof, has not been performed in accordance with the requirements of the Contract documents. Upon receipt of a Nonconformance Notice, the Contractor shall provide a written response within 7 days. The Contractor's response shall detail either (a) why they believe that the Work was performed in accordance with the Contract documents, or (b) what corrective action they intend to take, at their sole expense, to correct the nonconforming Work. If the Contractor disputes issuance of the notice, the Government will respond by either (a) withdrawing the Notice of Nonconformance or (b) directing the Contractor to correct the Work. If directed to correct the Work, the Contractor shall do so within 7 days after receipt of such direction from the Contracting Officer, or such other time as may be agreed to with the Contracting Officer.

3.6 CONTROL

Quality Control is the means by which the Contractor ensures that the construction, to include that of subcontractors and suppliers, complies with the requirements of the Contract. At least three phases of control are required to be conducted by the Quality Control Manager for each definable feature of the construction Work as follows:

3.6.1 Preparatory Phase

This phase is performed prior to beginning Work on each definable feature of Work, after all required plans/documents/materials are approved/accepted, and after copies are at the Project Site. This phase includes:

a. A review of each paragraph of applicable Specifications, reference codes, and standards. Make available during the preparatory inspection a copy of those sections of referenced codes and standards applicable to that portion of the Work to be accomplished in the field. Maintain and make available in the field for use by Government personnel until final acceptance of the Work.

b. Review of the Contract Drawings.

c. Check to assure that all materials and equipment have been tested, submitted, and approved.

d. Review of provisions that have been made to provide required control inspection and testing.

e. Examination of the Work Area to assure that all required preliminary Work has been completed and is in compliance with the Contract.

f. Examination of required materials, equipment, and sample Work to assure that they are on hand, conform to approved Shop Drawings or submitted data, and are properly stored.

g. Review of the appropriate activity hazard analysis to assure safety requirements are met.

h. Discussion of procedures for controlling quality of the Work including repetitive deficiencies. Document construction tolerances and workmanship standards for that feature of Work.

i. Check to ensure that the portion of the plan for the Work to be performed has been accepted by the Contracting Officer.

3.6.2 Initial Phase

This phase is accomplished at the beginning of a definable feature of Work. Accomplish the following:

a. Check Work to ensure that it is in full compliance with Contract requirements. Review minutes of the preparatory meeting.

b. Verify adequacy of controls to ensure full Contract compliance. Verify required control inspection and testing are in compliance with the Contract.

c. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with required sample panels as appropriate.

d. Resolve all differences.

e. Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.

g. The initial phase for each definable feature of Work is repeated for each new crew to Work on-site, or any time acceptable specified quality standards are not being met.

3.6.3 Follow-up Phase

Perform daily checks to assure control activities, including control testing, are providing continued compliance with Contract requirements, until completion of the particular feature of Work. Record the checks in the Quality Control documentation. Conduct final follow-up checks and correct all deficiencies prior to the start of additional features of Work which may be affected by the deficient Work. Do not build upon nor conceal non-conforming Work.

3.6.4 Additional Preparatory and Initial Phases

Conduct additional preparatory and initial phases on the same definable features of Work if: the quality of on-going Work is unacceptable; if there are changes in the applicable Quality Control staff, on-site production supervision or work crew; if Work on a definable feature is resumed after a substantial period of inactivity; or if other problems

develop.

3.7 TESTS

Unless otherwise stated herein all required sampling and testing shall be by the Contractor at their own expense. All tests shall be performed using specified testing procedures, or if no procedure is specified, the standard testing procedure used by the ASTM will be used. The Contractor shall notify the Contracting Officer when such testing will be performed so that the test may be observed by the Contracting Officer and/or designated representatives. In addition to the specified testing requirements herein, the Government may perform additional verification testing at its own expense. All necessary samples and/or Work associated with such samples for such testing shall be provided by the Contractor at no additional cost to the Government.

Unless otherwise specified, certified tests performed earlier than one year prior to the Contract Award date are not acceptable.

3.7.1 Testing Procedure

The Contractor shall furnish all equipment, instruments, qualified personnel, and facilities, and perform all inspections, testing, and certifications specified in the individual sections.

Notify the Contracting Officer at least 48 hours in advance of the dates and times scheduled for all field tests and inspections. The Contractor shall be required to coordinate inspections and testing at the convenience of the Government. The Contracting Officer need not be present during inspection or tests, but the Contracting Officer may require inspections or tests to be scheduled at a date and time when the Contracting Officer will be able to witness such activities.

Perform specified or required tests to verify that control measures are adequate to provide a product which conforms to Contract requirements. Testing includes operation and acceptance tests when specified. Perform the following activities and record and provide the following data:

a. Verify that testing procedures comply with Contract requirements.

b. Verify that facilities and testing equipment are available and comply with testing standards.

c. Check test instrument calibration data against certified standards.

d. Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.

e. Repeat tests and inspections after each correction made to nonconforming materials and workmanship until tests and inspections indicate the materials, equipment, and workmanship meet Contract requirements. Repeated tests and inspections shall be performed at no additional cost to Government.

f. Do not cover or conceal Work until required tests and inspection results indicate that the Work conforms to Contract requirements.

3.8 COMPLETION INSPECTION

Allow the Contracting Officer access to all Work for inspection. Do not conceal, cover, or enclose Work until the Contracting Officer has had an opportunity to inspect the Work, or as approved.

Submit a Discrepancies and Omissions list (Punch List) after Punch-Out, Pre-Final, and Final Inspection. The Punch List is not an all-inclusive listing of discrepancies which exist between the Contract Specifications and the Work as performed up to the date of the list. It is also not a waiver of any other Government Claim. The Government at all times reserves all of its rights and remedies under the Contract.

3.8.1 Punch-Out Inspection

Conduct an inspection of the Work by the Quality Control Manager near the end of the Work, or any increment of the Work established by a time stated in FAR 52.211-10 Commencement, Prosecution, and Completion of Work, or by the Specifications. Prepare and include in the Quality Control documentation in the Punch List of items which do not conform to the approved Drawings and Specifications, as required by paragraph DOCUMENTATION. Include within the list of deficiencies the estimated date by which the deficiencies will be corrected. Make a second inspection the Quality Control Manager or staff to ascertain that all deficiencies have been corrected. Once this is accomplished, notify the Government that the facility is ready for the Government Pre-Final inspection.

3.8.2 Pre-Final Inspection

The Government will perform the Pre-Final Inspection to verify that the facility is complete and ready to be occupied. A Government Pre-Final Punch List may be developed as a result of this inspection. Ensure that all items on this list have been corrected before notifying the Government, so that a Final inspection with the customer can be scheduled. Correct any items noted on the Pre-Final inspection in a timely manner. These inspections and any deficiency corrections required by this paragraph need to be accomplished within the time slated for completion of the entire Work or any particular increment of the Work if the Project is divided into increments by separate completion dates.

3.8.3 Final Acceptance Inspection

The Contractor's Quality Control Inspection personnel, plus the superintendent or other primary management person, and the Contracting Officer is required to be in attendance at the final acceptance inspection. Additional Government personnel including, but not limited to, those from Base/Installation Facility Engineer user groups, and major commands can also be in attendance. The final acceptance inspection will be formally scheduled by the Contracting Officer based upon results of the Pre-Final inspection. Notify the Contracting Officer at least 14 days prior to the final acceptance inspection and include the Contractor's assurance that all specific items previously identified to the Contractor as being unacceptable, along with all remaining Work performed under the Contract, will be complete and acceptable by the date scheduled for the final acceptance inspection. Failure of the Contractor to have all Contract Work acceptably complete for this inspection will be cause for the Contracting Officer to bill the Contractor for the Government's additional inspection cost in accordance FAR 52.246-12 Inspection of Construction.

Final completion and acceptance of Work performed under this Contract will be established by a written notice of acceptance issued by the Contracting Officer.

3.9 DOCUMENTATION

3.9.1 Quality Control Activities

Maintain current records providing factual evidence that required Quality Control activities and tests have been performed. Include in these records the Work of subcontractors and suppliers on an acceptable form that includes, as a minimum, the following information:

a. The name and area of responsibility of the Contractor/subcontractor.

b. Operating plant/equipment with hours worked, idle, or down for repair.

c. Work performed each day, giving location, description, and by whom. When Network Analysis (NAS) is used, identify each phase of Work performed each day by NAS activity number.

d. Test and control activities performed with results and references to Specifications/Drawings requirements. Identify the control phase (Preparatory, Initial, Follow-up). List of deficiencies noted, along with corrective action.

e. Quantity of materials received at the Site with statement as to acceptability, storage, and reference to Specifications/Drawings requirements.

f. Submittals and deliverables reviewed, with Contract reference, by whom, and action taken.

g. Off-site surveillance activities, including actions taken.

h. Job safety evaluations stating what was checked, results, and instructions or corrective actions.

i. Instructions given/received and conflicts in plans and Specifications.

3.9.2 Verification Statement

Indicate a description of trades working on the Project; the number of personnel working; weather conditions encountered; and any delays encountered. Cover both conforming and deficient features and include a statement that equipment and materials incorporated in the Work and workmanship comply with the Contract. Furnish the original and one copy of these records in report form to the Government daily within 24 hours after the date covered by the report, except that reports need not be submitted for days on which no Work is performed. As a minimum, prepare and submit one report for every 7 days of no Work and on the last day of a no work period. All calendar days need to be accounted for throughout the life of the Contract. The first report following a day of no work will be for that day only. Reports need to be signed and dated by the Contractor Quality Control Manager. Include copies of test reports and copies of reports prepared by all subordinate Quality Control personnel within the Quality Control Manager Report.

3.10 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected noncompliance with the foregoing requirements. Take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the Project Site, will be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer can issue an order stopping all or part of the Work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders will be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

-- End of Section --

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SECTION 01 50 00

TEMPORARY CONSTRUCTION FACILITIES AND CONTROLS
11/21

PART 1 GENERAL

1.1 WORK COVERED

This section informs the Contractor which utilities, services, and temporary facilities will be made available by the Government during the performance of Work.

Provide and maintain temporary facilities during the Contract as required by BOCA, NEC, OSHA, and NFPA codes, the U.S. Coast Guard Base's regulations, and other health and safety codes. Obtain the approval of the Contracting Officer before installing or relocating temporary facilities. Install and/or relocate temporary facilities before starting Work unless otherwise approved by the Contracting Officer.

1.2 REFERENCES

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

FEDERAL ACQUISITION REGULATIONS (FAR)

FAR 52.236-14	Availability and Use of Utility Services

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 70	(2020; ERTA 20-1 2020; ERTA 20-2 2020; TIA 20-1; TIA 20-2; TIA 20-3; TIA 20-4) National Electrical Code
NFPA 241	(2019) Standard for Safeguarding Construction, Alteration, and Demolition Operations

U.S. FEDERAL AVIATION ADMINISTRATION (FAA)

FAA AC 70/7460-1	(2015; Rev L) Obstruction Marking and Lighting

U.S. FEDERAL HIGHWAY ADMINISTRATION (FHWA)

MUTCD	(2015) Manual on Uniform Traffic Control Devices

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

29 CFR 1910	Occupational Safety and Health Standards
29 CFR 1915	Confined and Enclosed Spaces and Other Dangerous Atmospheres in Shipyard

	Employment
29 CFR 1926	Safety and Health Regulations for Construction
29 CFR 1926, Subpart K	Electrical

1.3 SUBMITTALS

Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Construction Site Plan

Contractor Temporary Network Cybersecurity Compliance Statements

Contractor Computer Cybersecurity Compliance Statements

1.3.1 Submittal Transmittals

In accordance with Section 01 33 00 SUBMITTAL PROCEDURES, all submittals require a submittal transmittal form and all submittal transmittal forms must be signed by an authorized official of the Contractor, indicating that the Contractor has reviewed the submittal for conformance with all requirements of the Contract documents, in order to be accepted.

1.4 CONSTRUCTION SITE PLAN

Prior to the start of Work, submit a Site Plan showing the locations and dimensions of temporary facilities (including layouts and details, interior space layout and HVAC provisions, Site Adaptation Drawings and details, and utilities capacity requirements and connection details, equipment and material storage area (on-site and off-site), and access and haul routes, avenues of ingress/egress to the fenced area and details of the fence installation. Identify any areas which may have to be graveled to prevent the tracking of mud. Indicate if the use of a supplemental or other staging area is desired. Show locations of safety and construction fences, Site trailers, construction entrances, trash dumpsters, temporary sanitary facilities, and worker parking areas.

1.5 CYBERSECURITY DURING CONSTRUCTION

{For Reference Only: This subpart (and its subparts) relates to AC-18, SA-3, CCI-00258.} Meet the following requirements throughout the Construction process.

1.5.1 Contractor Computer Equipment

Contractor owned computers may be used for construction. When used, Contractor computers must meet the following requirements:

1.5.1.1 Operating System

The operating system must be an operating system currently supported by the manufacturer of the operating system. The operating system must be

current on security patches and operating system manufacturer required updates.

1.5.1.2 Anti-Malware Software

The computer must run anti-malware software from a reputable software manufacturer. Anti-malware software must be a version currently supported by the software manufacturer, must be current on all patches and updates, and must use the latest definitions file. All computers used on this project must be scanned using the installed software at least once per day.

1.5.1.3 Passwords and Passphrases

The passwords and passphrases for all computers must be changed from their default values. Passwords must be a minimum of eight characters with a minimum of one uppercase letter, one lowercase letter, one number and one special character.

1.5.1.4 Contractor Computer Cybersecurity Compliance Statements

Provide a single submittal containing completed Contractor Computer Cybersecurity Compliance Statements for each company using contractor owned computers. Contractor Computer Cybersecurity Compliance Statements must use the template published at http://www.wbdg.org/ffc/dod/unified-facilities-guide-specifications-ufgs/forms-graphic Each Statement must be signed by a cybersecurity representative for the relevant company.

1.5.2 Temporary IP Networks

Temporary contractor-installed IP networks may be used during construction. When used, temporary Contractor-installed IP networks must meet the following requirements:

1.5.2.1 Network Boundaries and Connections

The network must not extend outside the project site and must not connect to any IP network other than IP networks provided under this project or Government furnished IP networks provided for this purpose. Any and all network access from outside the Project Site is prohibited.

1.5.3 Government Access to Network

Government personnel must be allowed to have complete and immediate access to the network at any time in order to verify compliance with this specification.

1.5.4 Temporary Wireless IP Networks

In addition to the other requirements on temporary IP networks, temporary wireless IP (WiFi) networks must not interfere with existing wireless network and must use WPA2 security. Network names (SSID) for wireless networks must be changed from their default values.

1.5.5 Passwords and Passphrases

The passwords and passphrases for all network devices and network access must be changed from their default values. Passwords must be a minimum 8

characters with a minimum of one uppercase letter, one lowercase letter, one number and one special character.

1.5.6 Contractor Temporary Network Cybersecurity Compliance Statements

Provide a single submittal containing completed Contractor Temporary Network Cybersecurity Compliance Statements for each company implementing a temporary IP network. Contractor Temporary Network Cybersecurity Compliance Statements must use the template published at http://www.wbdg.org/ffc/dod/unified-facilities-guide-specifications-ufgs/forms-graphic Each Statement must be signed by a cybersecurity representative for the relevant company. If no temporary IP networks will be used, provide a single copy of the Statement indicating this.

PART 2 PRODUCTS

2.1 TEMPORARY SIGNAGE

2.1.1 Bulletin Board

Within one calendar day of mobilization on Site and prior to the commencement of Work activities, provide a clear weatherproof covered bulletin board not less than 36 by 48 inches in size for displaying the following:

a. Notice to all employees working on federal construction Contracts form WH 1321 (the Davis-Bacon Act General Wage Decision applicable to the Contract).

b. Minimum wage poster as required by the Fair Labor Standards Act.

c. A copy of the wage decision contained in the Contract

d. Notice of Employee Rights Poster required by Executive Order 13496.

e. Equal Opportunity is the Law poster as required by the EEOC.

f. Safety and Health Information as required by 29 CFR 1926.

Locate the bulletin board at the Project Site in a conspicuous place easily accessible to all employees, as approved by the Contracting Officer.

2.1.2 Warning Signs

Post temporary signs, tags, and labels to give workers and the public adequate warning and caution of construction hazards in accordance with 29 CFR 1926 and MUTCD.

2.2 TEMPORARY WIRING

Provide temporary wiring in accordance with 29 CFR 1926 NFPA 241 and NFPA 70. Include monthly inspection and testing of all equipment and apparatus.

PART 3 EXECUTION

3.1 CONTRACTOR PARKING

Construction Contract employees will park privately owned vehicles in an

area designated by the Contracting Officer. Contractor parking must not interfere with existing and established parking requirements of the Government Installation.

The Contractor shall limit parking to within the limits of the spaces identified by the Contracting Officer.

Allow one parking space for the CI at the Project Site and two parking spaces at the trailer.

3.2 CRANE SERVICES

The Contractor is responsible for obtaining any required crane or overhead lifting services for this Work.

3.3 AVAILABILITY AND USE OF UTILITY SERVICES

Utilities, services, temporary facilities may be available in accordance with FAR 52.236-14 and only to the extent specifically provided herein. Coordinate the establishment and use of utilities, services and temporary services with the Contracting Officer. Obtain the approval of the Contracting Officer before installing any hookups or connections.

The term utility service includes, but is not limited to meters, mains, service lines, high voltage feeders, transformers, force mains, lift stations, fuel piping, etc. The Contractor is responsible for coordinating the Work with the utility provider to insure the utility connection to the Site is completed and that there is no delay in the prosecution of the Work or completion of the Project.

The Contractor shall not operate nor disturb the setting of control devices in the Installation's utilities system, including water, sewer, electrical, telephone, data and steam services without prior approval from the Contracting Officer.

3.3.1 Outages, Down Time or Out of Service Time:

Interruption to water, sanitary sewer, storm sewer, telephone service, electric service, air conditioning, compressed air systems, heating, fire alarm, etc. shall be considered utility outages.

The Contractor shall provide and pay for all resources to safely coordinate, investigate and operate the temporary shutdown of utilities.

The Contractor shall be required to coordinate outages at the convenience of the Government. Outages will be approved by the Contracting Officer. The Contractor shall request the Contracting Officer's permission to schedule any necessary utility outage. The request shall be in writing, and shall identify the utility, reason for outage, location of outage, proposed time of outage, and the estimated duration of the proposed outage. In addition, the request shall identify all other utilities affected by the outage, and shall include any necessary sketches, and a description of the means to fulfill energy isolation requirements in accordance with applicable OSHA standards 29 CFR 1910, 29 CFR 1915, and 29 CFR 1926, including but not limited to 29 CFR 1926, Subpart K.

Utility outages shall be requested at least 2 working days in advance, and shall never exceed 2 hours. Permission and duration for outages will be granted by the Contracting Officer based upon the need for the utility,

and upon consideration of suitable bypasses, or alternate arrangements.

Limit downtime to a minimum. If downtime, including time for deactivation and reactivation, will be greater than 2 hours, Contractor shall provide temporary service of the same capacity as that which is out of service, unless otherwise authorized by the Contracting Officer.

3.3.2 Underground Utilities

The underground utility locations shown on the Drawings are not exact. Locator shall identify utilities within 10 feet of the hut anchor locations in accordance with Section 01 11 00 SUMMARY OF WORK.

If any digging is required, submit digging requests in accordance with Section 01 14 00 WORK RESTRICTIONS and Section 01 57 19 TEMPORARY ENVIRONMENTAL CONTROLS

Mark the hut anchor locations and intersecting utilities and parallel utilities within 10' of anchor locations.

The hut anchors may not be driven within 10' of underground utilities without approval of the contracting officer.

3.3.3 Protection and Restoration

The Contractor shall safeguard and protect from damage all utilities encountered or uncovered. All Work to repair damage to commercial utilities shall be coordinated through the utility.

Contractor shall restore damaged piping, cable(s), and circuits to original condition and full operation if damage occurs through his failure or comply with instructions, or to obtain utility locations. Notification of damage shall be made immediately to the affected utility, to the U.S. Coast Guard representative as listed on the digging permit, and to the Contracting Officer; restoration efforts shall commence within 1 hour. Failure to commence restoration within the required time limit, or to make continuous progress toward restoration, or to complete acceptable restoration within a 4-hour time limit or an alternate time limit negotiated with and established by the Contracting Officer, shall result in suspension of all other Contract Work until acceptable restoration is completed and approved by the Contracting Officer.

In cases where a utility is damaged for reasons noted above, the Contractor shall, if lacking the qualified trades in his organization, employ as necessary such qualified trades or employ another Contractor having such trades to restore the utility to its original condition and full operation at no expense to the Government.

The Government reserves the right to protect damaged communications cables from further damage or deterioration and the right to restore priority circuits; these actions shall not relieve the Contractor of his full responsibility for restoration.

3.3.4 Temporary Utilities

Provide temporary utilities required for construction. Materials may be new or used, must be adequate for the required usage, not create unsafe

conditions, and not violate applicable standards and local, state and federal codes governing the installation of the utility service being installed.

3.3.4.1 Payment for Utility Services

The following temporary services and equipment will be made available from existing outlets and supplies for use in performing this Contract, in accordance with FAR 52.236-14 and this Section

a. The Government will make all reasonably required utilities available from existing outlets and supplies, as specified in the Contract.

b. Reasonable amounts of the following utilities will be made available without charge.

Electricity

c. Contractor shall pay all costs incurred in connecting, converting, and transferring the utilities to the Work. Under no circumstances will taps to base fire hydrants be allowed for obtaining potable water.

The Contractor shall provide all other temporary services, utilities, and equipment required to complete the Work of this Contract which are not provided by the U.S. Coast Guard. These include but are not limited to the following:

a. Barricades, railings and other safety gear

b. Fire protection

c. Clean up and disposal of trash

d. Portable or temporary toilet facilities

Make all arrangements with the local utility providers and pay all fees, charges, and costs of any nature associated with establishing and installing temporary services which are not available via U.S. Coast Guard systems.

3.3.4.2 Temporary Connections

Obtain the approval of the Contracting Officer at least 3 working days in advance of installing any hookups or connections. Notify the Contracting Officer, in writing, 5 working days before final electrical connection is desired so that a utilities Contract can be established. The Contractor shall coordinate any temporary connections and usages with the Public Works Officer, via the Contracting Officer.

Provide and maintain necessary temporary connections, distribution lines, etc. required to measure the amount of each utility used for the purpose of determining charges.

Install temporary electrical power in accordance with National Electrical Code (NEC). Submit copies of executed permits.

3.3.5 Electricity

Provide connections, sized to provide service required for power and lighting. Locate feeder and branch wiring with area distribution boxes so that power is available throughout the Project Site by use of power cords. 120/240 electrical volt feeder service is available. Provide lighting as required for safe and secure operations. Electricity used will be furnished by the Government.

Coordinate with the local Electrical company for point of connection (POC) location for temporary electrical service requirements beyond capabilities of existing U.S. Coast Guard systems, and for coordination for outages and Electrical System Work.

Pay all fees and electrical usage charges directly to the electrical company. Install and maintain the temporary connection, convert and transfer power to the Work, and disconnect it upon completion of Work. Usage is limited to the amount required to construct this Project and manage the temporary facilities supporting this Project. Make connection arrangements with the Contracting Officer.

3.3.6 Trash Collection and Disposal

The Contractor shall be responsible for collection and disposal of debris and rubbish generated as part of this Work, including obtaining receptacles and vehicles. Use of existing Government trash receptacles or dumpsters is not permitted.

The Contractor shall provide all other temporary services, utilities, and equipment required, which are not provided by the U.S. Coast Guard. These include, but are not limited to: Clean up and disposal of trash. Maintaining Project Site and Area of Work in a sanitary condition at all times. Establish the facilities in manner to minimize public viewing. Contracting Officer will approve location and installation.

3.3.7 Fire Protection

It is the inherent responsibility of the Contractor to practice good fire prevention measures while working on U.S. Coast Guard property. Provide and maintain adequate firefighting equipment during the entire construction period.

Provide temporary fire protection equipment for the protection of personnel and property during construction. Remove debris and flammable materials weekly to minimize potential hazards.

Comply with local fire protection regulations and, where the regulations do not apply, comply with the standards of the National Fire Protection Association.

Flammable paints, oil, varnishes, etc., stored inside structures must be in a metal storage cabinet. When stored outside, flammables must be in a controlled area. Flammables being used outside of these areas are limited to a one day supply.

On-site burning for disposal is not allowed.

3.3.8 Obstruction Lighting of Cranes

Provide a minimum of 2 aviation red or high intensity white obstruction lights on temporary structures (including cranes) over 100 feet above ground level. Light construction and installation must comply with FAA AC 70/7460-1. Lights must be operational during periods of reduced visibility, darkness, and as directed by the Contracting Officer.

3.4 CONTRACTOR'S TEMPORARY FACILITIES

Maintain a tidy Work Site. Proximity of the Work to the Air Station and operating airfields makes this particularly important.

3.4.1 Field Offices

Provide and maintain administrative construction field office facilities at the Project Site. Locate field office facilities where directed by the Contracting Officer. Government office and warehouse facilities will not be available to the Contractor's personnel.

3.4.1.1 Conference Room Space

Provide an on-site conference room of at least 240 square feet. This space may be located in the Contractor's separate temporary field office facilities.

Provide one 2'-6" x 6' conference table(s) with 6 folding chairs.

3.4.1.2 Construction Field Office

Furnish, install, and maintain an administrative Construction Field Office for use of Contractor personnel. The field office shall also be made available to Government personnel.

3.4.1.3 Quality Control Manager Records and Field Office

Furnish, install, and maintain an office a separate room in the Construction Field Office with approximately 100 square feet of useful floor area for the exclusive use of the Quality Control Manager. File quality control records in the ConstructionField Office and make available at all times to the Government.

3.4.2 Storage Areas

A Contractor's laydown area will be provided in the general vicinity of the Work Site. Coordinate location/use with the Contracting Officer..

The Contractor shall erect temporary barriers to demark their Work/storage Areas. There should be no expectation of security for the Contractor's materials. Fence posts may be driven, in lieu of concrete bases, where soil conditions permit. Do not place or store trailers, materials, or equipment outside the fenced area unless such trailers, materials, or equipment are assigned a separate and distinct storage area by the Contracting Officer away from the vicinity of the Work Site but within the installation boundaries. Trailers, equipment, or materials must not be open to public view with the exception of those items which are in support of ongoing Work on any given day. Do not stockpile materials outside the fence in preparation for the next day's Work. Park mobile equipment, such as tractors, wheeled lifting equipment, cranes, trucks, and like equipment

within the fenced area at the end of each work day.

The Contractor shall install security fencing around all Work and laydown areas. Fencing shall be substantial, to prevent pedestrian and vehicle access, to prevent windblown debris, and to denote areas of construction. Temporary barriers shall be erected to delineate a corridor around the Area of Work, for temporary pedestrian passage, and temporary fencing shall be installed to control/divert normal pedestrian pathways. Where necessary, the barriers should be supplemented with traffic control and informational signs. Fencing placed in existing paved areas (which are not replaced with the Work) shall be surface mounted.

3.4.2.1 Supplemental Storage Area

Upon request, and pending availability, the Contracting Officer will designate another or supplemental area for the use and storage of trailers, equipment, and materials. This area may not be in close proximity of the Work Site but will be within the installation boundaries. The area will be maintained in an clean and orderly fashion and secured if needed to protect supplies and equipment. Utilities will not be provided to this area by the Government.

3.4.2.2 Maintenance of Storage and Laydown Areas

a. Maintain tidy laydown and storage areas.

b. Provide foreign object debris (FOD) countermeasures to secure materials at all Worksites. Anchor fencing as required to prevent damage from weather or Station operations. Provide a means to secure materials at the end of the work day.

c. All existing materials which are to be removed, and are not indicated or specified for reuse in the new Work, shall, unless otherwise specified, be removed from Government property at the Contractor's expense, and disposed of in accordance with all Federal, State, and local regulations. Remove all salvage from Government property.

d. Keep fencing in a state of good repair and proper alignment. Grassed or unpaved areas, which are not established roadways, and will be traversed with construction equipment or other vehicles, will be covered with a layer of gravel as necessary to prevent rutting and the tracking of mud onto paved or established roadways, should the Contractor elect to traverse them with construction equipment or other vehicles. Mow and maintain grass located within the boundaries of the cProject Site for the duration of the Project. Grass and vegetation along fences, buildings, under trailers, and in areas not accessible to mowers will be edged or trimmed neatly.

e. Cut grass (or annual weeds) within the construction and storage sites to a maximum 4 inch height at least once a week during the growing season, whether or not area is visible to the public to assist in rodent control. Trim the grass around fences at time of grass cutting. Maintain grass or weeds on stockpiled earth as descried above.

3.4.2.3 Storage Size and Location

The site available for storage must be confined to the indicated operations area.

3.4.3 Security Provisions

Provide adequate outside security lighting at the temporary facilities. The Contractor will be responsible for the security of its own equipment.

3.4.4 Weather Protection of Temporary Facilities and Stored Materials

Take necessary precautions to ensure that roof openings and other critical openings in the building are monitored carefully. Take immediate actions required to seal off such openings when rain or other detrimental weather is imminent, and at the end of each workday. Ensure that the openings are completely sealed off to protect materials and equipment in the building from damage.

3.4.4.1 Building and Site Storm Protection

When a warning of gale force winds is issued, take precautions to minimize danger to persons, and protect the work and nearby Government property. Precautions must include, but are not limited to, closing openings; removing loose materials, tools and equipment from exposed locations; and removing or securing scaffolding and other temporary work. Close openings in the Work when storms of lesser intensity pose a threat to the Work or any nearby Government property.

3.5 DUMPSTERS

Equip dumpsters with a secure and/or lockable cover. Keep dumpster closed, except when being loaded with trash and debris. Empty Site dumpsters at least once a week, or as needed to keep the Site free of debris and trash. If necessary, provide 55 gallon trash containers to collect debris in the Work Area.

3.6 CLEANUP

The Contractor shall provide cleaning services after final inspection, immediately prior to Government acceptance including:

a. Cleaning of all windows (inside and outside), window screens, and all interior spaces. Remove packing labels, paint overspray, and other remnants of construction.

b. Remove construction debris, waste materials, packaging material and the like from the Project Site daily. Any dirt or mud which is tracked onto paved or surfaced roadways must be cleaned away. Store any salvageable materials resulting from demolition activities within the fenced area described above or at the supplemental storage area. Neatly stack stored materials not in trailers, whether new or salvaged.

Upon completion of the Project remove the bulletin board, signs, barricades, haul roads, etc. from the Project Site.

Unless specifically noted or directed otherwise by the Contracting Officer, all Contractor-furnished temporary facilities shall become property of the Contractor.

U.S. Coast Guard and Facility Partners shall have first right of refusal for all Government-furnished temporary facilities. Contracting Officer

will advise Contractor as to which Government-furnished temporary facilities are to become the property of the Contractor.

Unless otherwise directed by the Contracting Officer, all Contractor property shall be removed from the Site by the Contractor upon completion of the Project.

3.7 RESTORATION OF STORAGE AREAS

After removal of trailers, materials, equipment, etc. from within fenced areas, remove the fence. Restore areas used during the performance of the Contract to the original or better condition. Remove gravel used to traverse grassed areas and restore the area to its original condition, including top soil and seeding as necessary.

-- End of Section --

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ATTACHMENTS:

Attachment 15 - "Kodiak federally permitted land use control plan"

Attachment 16 - "Base Kodiak's Hazardous Waste Management Guide"

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SECTION 01 57 19

TEMPORARY ENVIRONMENTAL CONTROLS
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PART 1 GENERAL

1.1 Summary

This Specification Section covers the requirements for environmental protection, including protection of natural, historic, and archaeological resources as well as protected species and other temporary environmental controls. During all phases of this Project, the Contractor shall comply with all applicable federal, state, and local environmental requirements, including but not limited to applicable requirements of 18 AAC 70 Water Quality Standards, 40 CFR Protection of Environment, 29 CFR 1910 Occupational Safety and Health Standards, and 49 CFR 100-199 Hazardous Materials Transportation, Handling, and Storage Regulations. Contractor shall incorporate environmental requirements early, and ensure environmental compliance throughout all Project phases. Any fines, delays or other losses due to non-compliance shall be at the cost of the Contractor.

1.2 REFERENCES

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

ALASKA ADMINISTRATIVE CODE (AAC)

18 AAC 70	(2020) Water Quality Standards
18 AAC 72	(2017) Wastewater Disposal
18 AAC 75	(2020) Oil and Other Hazardous Substances Pollution Control
18 AAC 80	(2019) Drinking Water
18 AAC 83	Alaska Pollutant Discharge Elimination System Program

FEDERAL ACQUISITION REGULATIONS (FAR)

FAR 52.236-7	Permits and Responsibilities
FAR 52.236-12	Cleaning Up
FAR 52.242-14	Suspension of Work

U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)

EPA SW-846	(Third Edition; Update IV) Test Methods for Evluating Solid Waste: Physical/Chemical Methods

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

16 CFR 1302	Ban Of Extremely Flammable Contact Adhesives
16 CFR 1303	Ban of Lead-Containing Paint and Certain Consumer Products Bearing Lead-Containing Paint
16 CFR 1304	Ban of Consumer Patching Compounds Containing Respirable Free-Form Asbestos
29 CFR 1910	Occupational Safety and Health Standards
29 CFR 1910.120	Hazardous Waste Operations and Emergency Response
29 CFR 1910.1053	Respirable Crystalline Silica
29 CFR 1926.1153	Respirable Crystalline Silica
40 CFR	Protection of Environment
40 CFR 50	National Primary and Secondary Ambient Air Quality Standards
40 CFR 60	Standards of Performance for New Stationary Sources
40 CFR 61-SUBPART M	National Emission Standard for Asbestos
40 CFR 61.148	Standard for Insulating Materials
40 CFR 63	National Emission Standards for Hazardous Air Pollutants for Source Categories
40 CFR 64	Compliance Assurance Monitoring
40 CFR 82	Protection of Stratospheric Ozone
40 CFR 112	Oil Pollution Prevention
40 CFR 241	Guidelines for Disposal of Solid Waste
40 CFR 243	Guidelines for the Storage and Collection of Residential, Commercial, and Institutional Solid Waste
40 CFR 258	Subtitle D Landfill Requirements
40 CFR 260	Hazardous Waste Management System: General
40 CFR 261	Identification and Listing of Hazardous Waste
40 CFR 262	Standards Applicable to Generators of Hazardous Waste
40 CFR 262.31	Standards Applicable to Generators of

	Hazardous Waste-Labeling
40 CFR 262.34	Standards Applicable to Generators of Hazardous Waste-Accumulation Time
40 CFR 263	Standards Applicable to Transporters of Hazardous Waste
40 CFR 264	Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
40 CFR 265	Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
40 CFR 266	Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities
40 CFR 268	Land Disposal Restrictions
40 CFR 273	Standards For Universal Waste Management
40 CFR 273.2	Standards for Universal Waste Management - Batteries
40 CFR 273.4	Standards for Universal Waste Management - Mercury Containing Equipment
40 CFR 273.5	Standards for Universal Waste Management - Lamps
40 CFR 273.6	Standards for Universal Waste Management - Aerosol Cans
40 CFR 279	Standards for the Management of Used Oil
40 CFR 300	National Oil and Hazardous Substances Pollution Contingency Plan
40 CFR 300.125	National Oil and Hazardous Substances Pollution Contingency Plan - Notification and Communications
40 CFR 355	Emergency Planning and Notification
40 CFR 372	Toxic Chemical Release Reporting: Community Right-To-Know
40 CFR 761	Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions
48 CFR 52.223-3	Hazardous Material Identification and Material Safety Data
49 CFR 100-199	Hazardous Materials Transportation, Handling, and Storage Regulations

49 CFR 171	General Information, Regulations, and Definitions
49 CFR 172	Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements
49 CFR 173	Shippers - General Requirements for Shipments and Packagings
49 CFR 178	Specifications for Packagings

1.3 DEFINITIONS

1.3.1 Alaska Pollutant Discharge Elimination System (APDES)

The APDES Permit Program controls water pollution by regulating point sources located in the state of Alaska that discharge pollutants into Waters of the United States. See 18 AAC 83.

1.3.2 Biological Assessment

The term "Biological Assessment" as used in this Specification Section refers to a report identifying natural and biological resources that may be impacted by the Project Work. These resources include but are not limited to migratory birds and their habitats, fish habitats, marine mammals, and all threatened, protected, and endangered species.

1.3.3 Class I and II Ozone Depleting Substance (ODS)

Class I ODS is defined in Section 602(a) of The Clean Air Act. A list of Class I ODS can be found on the EPA website at the following weblink. https://www.epa.gov/ozone-layer-protection/ozone-depleting-substances.

Class II ODS is defined in Section 602(s) of The Clean Air Act. A list of Class II ODS can be found on the EPA website at the following weblink. https://www.epa.gov/ozone-layer-protection/ozone-depleting-substances.

Most aerosols contain ODS. Use of any aerosols must be avoided unless adequate documentation is provided demonstrating that the product does not contain ODS and is approved by the Contracting Officer .

1.3.4 Contractor Generated Hazardous Waste

Contractor generated hazardous waste is materials that, if abandoned or disposed of, may meet the definition of a hazardous waste. These waste streams would typically consist of material brought on-site by the Contractor to execute Work, but are not fully consumed during the course of construction. Examples include, but are not limited to, excess paint thinners (e.g., methyl ethyl ketone, toluene), waste thinners, excess paints, excess solvents, waste solvents, excess pesticides, and contaminated equipment rinse water. Contractor Generated Hazardous Waste also includes Investigation-Derived Waste (IDW).

1.3.5 Determination of Effect

The term "Determination of Effect" as used in this Specification Section

refers to a report identifying what type of effect the proposed project will have to a "Historic Property" as defined in sec 300308. of the NHPA (National Historic Preservation Act). THe NHPA defines historic property to mean- any prehistoric or historic district, site, building, structure, or object included on, or eligible for inclusion on, the National Register, including artifacts, records, and material remains relating to the district, site, building, structure, or object.

1.3.6 Electronics Waste

Electronics waste is discarded electronic devices intended for salvage, recycling, or disposal.

1.3.7 Environmental Management Plan (EMP)

The EMP is a Project specific Plan which identifies the minimum regulatory compliance requirements for mitigation and handling of contaminated Environmental Media. A draft final version of this Plan is developed during or prior to Design for preliminary regulatory "buy-in" and is included with the Construction Project Solicitation. The Contractor is responsible for updating the draft final version of the plan based on Contractor's proposed means and methods and key personnel. The EMP is separate from the Environmental Protection Plan (EPP).

1.3.8 Environmental Media

Any organic material that may be contaminated prior to, or may become contaminated during the course of Work. Environmental media includes but is not limited to:

a. Groundwater
b. Soil
c. Sediment
d. Surface Water
e. Indoor Air
f. Vegetation and Ground Cover

1.3.9 Environmental Pollution and Damage

Environmental pollution and damage is the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to humankind; or degrade the environment aesthetically, culturally or historically.

1.3.10 Environmental Protection

Environmental protection is the prevention/control of pollution and habitat disruption that may occur to the environment during construction. The control of environmental pollution and damage requires consideration of land, water, and air; biological and cultural resources; and includes management of visual aesthetics; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive material as well as other pollutants.

1.3.11 Environmental Protection Plan (EPP)

The Environmental Protection Plan (EPP) is prepared and submitted by the Contractor to the Government in order to demonstrate compliance with all Project Environmental Management and Protection requirements.

1.3.12 Hazardous Debris

Debris that contain listed hazardous waste (either on the debris surface, or in its interstices, such as pore structure) in accordance with 40 CFR 261. Hazardous debris also includes debris that exhibits a characteristic of hazardous waste in accordance with 40 CFR 261. Also see Solid Waste definition.

1.3.13 Hazardous Materials

Hazardous materials as defined in 49 CFR 171 and listed in 49 CFR 172.

Hazardous material is any material that: Is regulated as a hazardous material in accordance with 49 CFR 173; or requires a Safety Data Sheet (SDS) in accordance with 29 CFR 1910.120; or during end use, treatment, handling, packaging, storage, transportation, or disposal meets or has components that meet or have potential to meet the definition of a hazardous waste as defined by 40 CFR 261 Subparts A, B, C, or D. Designation of a material by this definition, when separately regulated or controlled by other Sections or directives, does not eliminate the need for adherence to that hazard-specific guidance which takes precedence over this Section for "control" purposes. Such material includes, but is not limited to, ammunition, weapons, explosive actuated devices, propellants, pyrotechnics, chemical and biological warfare materials, medical and pharmaceutical supplies, medical waste and infectious materials, bulk fuels, radioactive materials, and other materials such as asbestos, mercury, and polychlorinated biphenyls (PCBs).

1.3.14 Hazardous Waste

Hazardous Waste is any material that meets the definition of a solid waste and exhibit a hazardous characteristic (ignitability, corrosivity, reactivity, or toxicity) as specified in 40 CFR 261, Subpart C, or contains a listed hazardous waste as identified in 40 CFR 261, Subpart D.

1.3.15 Investigation-Derived Wastes (IDW)

IDW is any waste created from drilling, boring, or other site investigation activities required to identify and determine contamination at a Project Site, whether or not contamination is known to exist. IDW may include drill cuttings and mud, purge water, sampling media, PPE, etc.

1.3.16 Installation

As used in this Specification Section, "Installation" is defined as the U.S. Coast Guard property location where the Project will occur.

1.3.17 Land Application

Land Application means spreading or spraying discharge water at a rate that allows the water to percolate into the soil. No sheeting action, soil erosion, discharge into storm sewers, discharge into defined drainage areas, or discharge into the "Waters of the United States" must occur. Comply with federal, state, and local laws and regulations.

1.3.18 National Pollutant Discharge Elimination System (NPDES)

The NPDES Permit Program controls water pollution by regulating point

sources that discharge pollutants into Waters of the United States. In the state of Alaska, the state NPDES Permit Program is the Alaska Pollutant Discharge Elimination System (APDES). Where required, the APDES Permit Program is applicable to most U.S. Coast Guard District 17 Projects. The national NPDES Permit Program is generally only applicable to Projects located in Denali National Park and Metlakatla.

1.3.19 NESHAP

National Emission Standards for Hazardous Air Pollutants. The USEPA NESHAP regulation for asbestos is at 40 CFR 61-SUBPART M.

1.3.20 Oily Waste

Oily waste are those materials that are, or were, mixed with Petroleum, Oils, and Lubricants (POLs) and have become separated from that POLs. Oily wastes also means materials, including wastewaters, centrifuge solids, filter residues or sludges, bottom sediments, tank bottoms, and sorbents which have come into contact with and have been contaminated by, POLs and may be appropriately tested and discarded in a manner which is in compliance with other state and local requirements.

This definition includes materials such as oily rags, "kitty litter" sorbent clay and organic sorbent material. These materials may be land filled provided that: It is not prohibited in other state regulations or local ordinances; the amount generated is "de minimus" (a small amount); it is the result of minor leaks or spills resulting from normal process operations; and free-flowing oil has been removed to the practicable extent possible. Large quantities of this material, generated as a result of a major spill or in lieu of proper maintenance of the processing equipment, are a solid waste. As a solid waste, perform a hazardous waste determination prior to disposal. As this can be an expensive process, it is recommended that this type of waste be minimized through good housekeeping practices and employee education.

1.3.21 Public Water System (PWS)

PWS means a storm, waste, or drinking water system for the provision to or from the public for human consumption through pipes or other constructed conveyances, or domestic wastewater systems, as regulated by 18 AAC 72 or 18 AAC 80.

1.3.22 Regulated Waste

Regulated waste are solid wastes that are regulated under RCRA, TSCA, NESHAP or other State, Tribal, or local governement regulations and have specific additional federal, state, or local controls for handling, storage, and/or disposal.

1.3.23 Sediment

Sediment is soil and other debris that have eroded and have been transported by runoff water or wind.

1.3.24 Solid Waste

Solid waste is a solid, liquid, semi-solid or contained gaseous waste as defined in 40 CFR 261. A solid waste can be a hazardous waste, non-hazardous waste, or non-Resource Conservation and Recovery Act (RCRA)

regulated waste, or waste water.

1.3.25 Surface Discharge

Surface discharge means discharge of water into drainage ditches, storm sewers, creeks or "Waters of the United States". Surface discharges are discrete, identifiable sources and require a Permit from the governing agency. Comply with federal, state, and local laws and regulations.

1.3.26 Stormwater Pollution Prevention Plan (SWPPP)

Stormwater Pollution Prevention Plans (SWPPP) are a requirement of the Clean Water Act and address a facility or construction project's pollutants and identify the Best Management Practices (BMPs) the facility or construction project will implement to reduce discharge of pollutants and contaminated environmental media into stormwater.

1.3.27 Wastewater

Wastewater is domestic or nondomestic wastewater. Wastewater includes stormwater, excavation dewatering discharges, construction dewatering discharges, or any other discharge regulated under the Alaska Pollution Discharge Elimination System (APDES).

1.3.27.1 Stormwater

Stormwater is any precipitation in an urban or suburban area that does not evaporate or soak into the ground, but instead collects and flows into storm drains, rivers, and streams.

1.3.28 Waters of the United States

Waters of the United States means Federally jurisdictional waters, including wetlands, that are subject to regulation under Section 404 of the Clean Water Act or navigable waters, as defined under the Rivers and Harbors Act.

1.3.29 Wetlands

Wetlands are those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

1.3.30 Universal Waste

The universal waste regulations streamline collection requirements for certain hazardous wastes in the following categories: batteries, pesticides, aerosol cans, mercury-containing equipment (for example, thermostats), and lamps (for example, fluorescent bulbs). The rule is designed to reduce hazardous waste in the municipal solid waste (MSW) stream by making it easier for universal waste handlers to collect these items and send them for recycling or proper disposal. These regulations can be found at 40 CFR 273.

1.4 SUBMITTALS

Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Environmental Protection PlanDigging Permit

SD-11 Closeout Submittals

Waste Determination Documentation

Disposal Documentation for Hazardous and Regulated Waste

Hazardous Waste/Debris Management

Project Waste Disposal Documentation Report

Environmental Records Binder

1.5 ENVIRONMENTAL PROTECTION REQUIREMENTS

1.5.1 General

Provide and maintain, during the life of the Contract, environmental protection as defined. Plan for and provide environmental protective measures to control pollution that develops during construction practice. Plan for and provide environmental protective measures required to correct conditions that develop during the construction of permanent or temporary environmental features associated with the Project. Protect the environmental resources within the Project boundaries and those affected outside the limits of permanent Work during the entire duration of this Contract. Comply with federal, state, and local regulations pertaining to the environment, including water, air, solid waste, hazardous waste and substances, oily substances, and noise pollution.

Tests and procedures assessing whether construction operations comply with Applicable Environmental Laws may be required. Analytical work must be performed by qualified laboratories; and where required by Contract Documents, law, or U.S. Coast Guard Civil Engineering Unit Juneau Environmental Branch and/or U.S. Coast Guard Base Kodiak Facilities Engineering Environmental Division, the laboratories must be certified.

1.6 SPECIAL ENVIRONMENTAL REQUIREMENTS

Comply with the special environmental requirements listed here:

a. Provide notification to the Contracting Officer on the day that the drain in Building N11 is plugged and the pipe leading to the decommissioned OWS is cut and capped.

b. Comply with Attachment 15 - "Kodiak federally permitted land use control plan" included in the appendices of these Project Specifications.

c. Soils within the Land Use Control boundary (Attachment 15) of Site 6B shall not be actively managed, per the 40 CFR 262 definition, without COR, State, and Federal approval.

1.7 ENVIRONMENTAL LICENSES, PERMITTING, AND APPROVAL REQUIREMENTS

1.7.1 General

The Contractor shall be responsible for identifying and obtaining all required Permits, approvals, notifications, concurrences, consultations, and certifications from federal, state, and local regulatory agencies for the construction of the Project and in accordance with FAR 52.236-7 Permits and Responsibilities. Timely acquisitions of all necessary related Permits that are not included in the Contract Documents shall be the responsibility of the Contractor. This Specification supplements the Contractor's responsibility under FAR 52.236-7 Permits and Responsibilities.

Contractor shall provide copies of all required Permits, approvals, notifications, concurrences, consultations, and certifications required by this Project Specification Section to the Contracting Officer for approval prior to official submittal.

Except for those included in the Contract Documents, the Contractor is responsible to prepare all Permit applications, notices of intent, notices of termination, etc. and to pay all associated costs and fees as part of this Contract. The Contractor shall be responsible for incorporating all Permit conditions and constraints and ensuring compliance with Permits is maintained throughout the Project.

Permit application, notice of intent, and notice of termination packages shall be submitted to regulators in hard copy or electronic format, as required by the regulators. On-line applications and submittals shall be accomplished by Contractor.

The Contractor shall be responsible for all associated Permit and application fees as well as penalties issued due to violations of Permit conditions.

1.7.2 Regulatory Notifications

Provide regulatory notifications in accordance with federal, state, and local regulations. Submit copies of regulatory notifications to the Contracting Officer for review and approval prior to submittal to the appropriate Regulatory Agency. Allow 30 calendar days for each Contracting Officer review cycle. Notifications must be approved by the Contracting Officer prior to submission to Regulatory Agency. In cases where the Government will also provide public notification (e.g., stormwater permitting), coordinate with the Contracting Officer. Regulatory agency review periods vary, Contractor shall account for Regulatory Agency review periods in their schedule.

1.7.3 Digging Permit

No ground disturbing activity shall commence without a Digging Permit issued by U.S. Coast Guard Base Kodiak Facilities Engineering Environmental Division. Note that, in addition to requirements specified elsewhere, including but not limited utility locates and surveys as required by Section 01 50 00 TEMPORARY CONSTRUCTION FACILITIES AND CONTROLS, the Contractor may be required to submit an approved Environmental Management Plan (EMP) in order to obtain the Digging Permit.

1.7.4 Facility Hazardous Waste Generator Status

Base Kodiak has a designated RCRA part B Permit as a Treatment, Storage, and Disposal Facility (TSDF).. Meet the regulatory requirements of this generator designation for any Work conducted within the boundaries of this Installation. Comply with provisions of federal, state, and local regulatory requirements applicable to this generator status regarding training and storage, handling, the pre-transport, preparedness & prevention, episodic event notification and requirements, and disposal of construction derived wastes.

1.8 QUALITY CONTROL

1.8.1 Preconstruction Survey and Protection of Features

This paragraph supplements the Contract Clause PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS. Prior to start of any on-site construction activities, perform a Preconstruction Survey of the Project Site including any and all monitoring wells in the general vicinity of the Project Site with the Contracting Officer, and take photographs showing existing environmental conditions in and adjacent to the Site. Submit a report for the record. Include in the report a plan describing the features requiring protection under the provisions of the Contract Clauses, which are not specifically identified on the Drawings as environmental features requiring protection along with the condition of trees, shrubs and grassed areas immediately adjacent to the Site of Work and adjacent to the Contractor's assigned storage area and access route(s), as applicable. The Contractor and the Contracting Officer will sign this survey report upon mutual agreement regarding its accuracy and completeness. Protect those environmental features included in the survey report and any indicated on the Drawings, regardless of interference that their preservation may cause to the Work under the Contract.

1.8.2 Environmental Manager Qualifications

Appoint in writing an Environmental Manager for the Project Siteand include qualifications in the Environmental Protection Plan

The Environmental Manager must must be familiar with the requirements of 40 CFR Protection of Environment, 29 CFR 1910 Occupational Safety and Health Standards, and 49 CFR 100-199 Hazardous Materials Transportation, Handling, and Storage Regulations. The individual shall have experience in the areas of contaminated environmental media identification, mitigation, and safety compliance. The individual must be experienced in working with environmental regulatory agencies. The Contracting Officer

may request proof of the Environmental Manager's qualifications at any point in the Project if the performance of the Contractor's Environmental Manager is in question.

The Environmental Manager is directly responsible for coordinating Contractor compliance with federal, state, local, and U.S. Coast Guard requirements. The Environmental Manager must ensure compliance with Hazardous Waste Program requirements (including hazardous waste handling, storage, manifesting, and disposal); implement the EPP; ensure environmental Permits are obtained, maintained, and closed out; ensure compliance with sewer and storm water Program requirements; ensure compliance with contaminated sites program requirements; ensure compliance with Hazardous Materials (storage, handling, and reporting) requirements; and coordinate any remediation of regulated substances (lead, asbestos, PCB transformers, etc.).

The Environmental Manager may be a collateral position; however, the person in this position must be trained to adequately accomplish the following duties:

a. Ensure waste segregation and storage compatibility requirements are met.

b. Inspect and manage Satellite Accumulation areas.

c. Ensure only authorized personnel add wastes to containers.

d. Ensure Contractor personnel are trained in 40 CFR requirements in accordance with their position requirements.

e. Coordinate removal of waste containers;

f. Maintain the Environmental Records binder and required documentation, including environmental Permits compliance and close-out.

g. Coordinate associated OSHA practices applicable to the Environmental Work performed.

1.8.3 Employee Training Records

a. Prepare and maintain Employee Training Records throughout the term of the Contract meeting applicable 40 CFR requirements. Provide Employee Training Records in the Environmental Records Binder. Submit these Assembled Employee Training Records to the Contracting Officer at the conclusion of the Project, unless otherwise directed.

b. Train personnel to meet applicable environmental requirements. Conduct environmental protection/pollution control meetings for personnel prior to commencing construction activities. Conduct additional meetings for new personnel and when Site conditions change. Include in the training and meeting agenda: methods of detecting and avoiding pollution; familiarization with statutory and contractual pollution standards; installation and care of devices, vegetative covers, and instruments required for monitoring purposes to ensure adequate and continuous environmental protection/pollution control; anticipated hazardous or toxic chemicals or wastes, and other regulated contaminants; recognition and protection of archaeological sites, artifacts, Waters of the United States, and endangered species

and their habitat that are known to be in the area.

c. Contracting Officer's approval is required for any changes to the Environmental Manager, and/or Contractor's Environmental Protection personnel.

1.8.4 Non-Compliance Notifications

The Contracting Officer will notify the Contractor in writing of any observed noncompliance with federal, state or local environmental laws or regulations, Permits, and other elements of the Contractor's EPP. After receipt of such notice, inform the Contracting Officer of the proposed corrective action and take such action when approved by the Contracting Officer. The Contracting Officer may issue an order stopping all or part of the Work until satisfactory corrective action has been taken.

Any non-compliance identified by a federal, state, or local environmental enforcement regulator shall be immediately reported to the Contracting Officer.

FAR 52.242-14 Suspension of Work provides that a suspension, delay, or interruption of Work due to the fault or negligence of the Contractor allows for no adjustments to the Contract for time extensions or equitable adjustments. This is in addition to any other actions the Contracting Officer may take under the Contract, or in accordance with the Federal Acquisition Regulation or Federal Law.

1.9 ENVIRONMENTAL PROTECTION PLAN (EPP)

Meet with the Contracting Officer to discuss the information required to be provided in and addressed by the EPP in more detail. Develop a mutual understanding with the U.S. Coast Guard relative to the details for environmental protection including measures for protecting natural resources, required reports, and other measures to be taken.

An Environmental Protection Plan shall be developed and an electronic copy submitted by the Contractor to the Contracting Officer before the Preconstruction Meeting.

Revise the EPP throughout the Project to include any reporting requirements, changes in Site conditions, or Contract modifications that change the Project Scope of Work in a way that could have an environmental impact.

No requirement in this Specification Section will relieve the Contractor of any applicable federal, state, and local environmental protection laws and regulations. During Construction, identify, implement, and submit for approval any additional requirements to be included in the EPP. Maintain an up-to-date version on-site.

1.9.1 General Overview and Purpose

The purpose of the EPP is to present an overview of known or potential environmental issues that must be considered and addressed prior to commencement of on-site work, during construction, and at closeout for deliverables at conclusion of construction.

Include in the EPP measures for protecting natural, historical, archaeological, and cultural resources; including required reports, and

other measures to be taken.

At a minimum, the EPP shall provide the following information:

a. Contractor Environmental Professional(s) Qualifications and Environmental Emergency Contact Information

b. Detail on environmental commitments, mitigation and conservation measures, and applicable standards.

c. A description of the methods and procedures by which the Contractor intends to minimize/mitigate adverse impact to the environment resulting from the Work.

d. Identification of reporting and record keeping requirements.

1.9.2 EPP Contents

The EPP includes, but is not limited to, the following elements:

1.9.2.1 Title Page

Provide a title page identifying the Project, location, revision date, and Contract Number(s). The title page shall be followed by a table of contents with hyperlinks to each of the following sections.

1.9.2.2 Environmental Emergency Contact Information

Include a dedicated page or pages for environmental emergency contact information (name, organization or agency, office phone number, cell phone number, and e-mail address).

1.9.2.3 Executive Summary

Provide a brief description of the Project and each specific environmental requirement as it pertains to this Contract.

1.9.2.4 Introduction

Following the Executive Summary, the EPP should include an Introduction section. The Introduction section shall provide a description of the duties, procedures, communications and training, along with General Project Site Information and Work Plans.

Include the following items in the Introduction section of the EPP:

1.9.2.4.1 Duties

The duties and level of authority assigned to the person(s) on the Project Site who oversee environmental compliance, such as who is responsible for adherence to the EPP, who is responsible for spill cleanup and training personnel on spill response procedures, who is responsible for manifesting hazardous waste to be removed from the Site (if applicable), and who is responsible for training the Contractor's environmental protection personnel.

1.9.2.4.2 Procedures

A copy of any standard or Project-specific operating procedures that will

be used to effectively manage and protect the environment on the Project Site.

1.9.2.4.3 Communications

Communication and training procedures that will be used to convey environmental management requirements to Contractor employees and subcontractors.

1.9.2.4.4 General Site Information

1.9.2.4.4.1 Drawings

Include Drawings showing locations of relevant items such as proposed temporary excavations or embankments; haul roads; stream crossings; jurisdictional wetlands; material storage areas; structures; sanitary facilities; storm drains and conveyances; natural, historical, archaeological, and/or cultural resources; marine mammal zones; and stockpiles of excess soil.

1.9.2.4.4.2 Work Area

Provide a Work Area Plan showing the proposed activity in each portion of the area and identify the areas of limited use or nonuse. Include measures for marking the limits of use areas, including methods for protection of features to be preserved within authorized Work Areas and methods to control runoff and to contain materials on Site, and a traffic control plan.

1.9.2.5 Environmental Commitments Developed During Planning

Contractor shall identify all required environmental Permits, approvals, notifications, etc. from federal, state, and local regulatory agencies. The EPP shall also outline the procedure and provide draft compliance plans for any anticipated environmental regulatory compliance procedures not included in the Project Specifications or provided by the Government at Project Award.

List ALL applicable Environmental Licenses, Permits, and Approvals required for the Project. Identify notifications that have been completed and which approvals have been received. Also indicate which notifications and Permit applications must still be made. Some Permits require up to 180 days to obtain. Demonstrate that those Permits have been obtained or applied for by referencing and including copies of applicable environmental Permits or applications . The EPP will not be approved until the Permits have been obtained.

1.9.2.6 Project Specific Environmental Permits, Licenses, Approvals, Regulations, and Issues

The EPP shall include copies of the following documents at a minimum:

a. A letter signed by an officer of the firm appointing the Environmental Manager and stating that person is responsible for managing and implementing the Environmental Program as described in this Contract. Include in this letter the Environmental Manager's authority to direct the removal and replacement of non-conforming Work. Provide a copy of the Environmental Manager's Qualifications immediately following this letter.

b. Completed ADEC documentation and any other environmental agency regulatory approval documentation applicable to the Project. For example, if a SWPPP is required for coverage under a Stormwater General Permit, then the EPP shall also include the approved copy of the SWPPP.

c. The EPP shall always include a copy of the Contaminated Environmental Media Contingency Plan or reference to the EMP.

1.9.2.7 Erosion and Sediment Control

Include detail on how erosion and sediment control will be executed for the Project. Reference and include any regulatory approvals and mitigation measures. If a SWPPP is provided, it should be referenced in this section of the EPP. The following information shall be provided at a minimum:

a. Ground cover

b. Erodible soils

c. Temporary measures

(1) Structural Practices

(2) Temporary and permanent stabilization

d. Effective selection, implementation and maintenance of Best Management Practices (BMPs).

1.9.2.8 Prevention of Releases to the Environment

This part of the EPP shall include a description of the Contractor's means and methods to prevent releases to the environment and shall include the Spill Prevention Plan.

1.9.2.8.1 Spill Prevention Plan

The Spill Prevention Plan shall include the Contractor's procedures to prevent any releases to the environment and notification requirements to federal, state, local agencies, including the facility's Response and Readiness contacts (i.e. fire department, environmental department, etc) in the event of an accidental release.

This part of the EPP shall also describe management of temporary equipment fueling operations to include release prevention, on-site spill kit placement, and cleanup capabilities.

1.9.2.9 Contaminated Environmental Media Contingency Plan

When an EMP is not provided or required for a Project, then the Contractor shall develop a Contaminated Environmental Media Contingency Plan. This plan shall cover procedures in case of inadvertent discovery or generation of contaminated environmental media.

The Contaminated Environmental Media Contingency Plan shall be approved by the Contracting Officer and shall be included in the EPP as well as

provided and available as a stand-alone document.

In cases of inadvertent discovery of contaminated environmental media which may not be identified in the EMP, or whenever there is a need to change a procedure or personnel, the Contractor shall immediately notify the Contracting Officer.

1.9.2.10 Protection of the Environment from Waste Derived from Contractor Operations

Protection of the environment from Contractor generated waste includes both control and disposal of solid and sanitary waste as well as control and disposal of hazardous waste.

1.9.2.10.1 Control and Disposal of Solid and Sanitary Waste

Describe and outline the procedures for compliance with all U.S. Coast Guard and other regulatory agency requirements related to the following items:

a. Recycling.

b. Waste Minimization: Identify anticipated materials and waste for salvage, reuse, and recycling. Describe actions to promote material reuse, resale or recycling.

c. Waste Containment.

d. Non-Hazardous Waste Classification, Identification, and Management.

e. Hazardous Waste Identification and Classification.

1.9.2.10.2 Control and Disposal of Hazardous Waste

Include hazardous material control and disposal procedures as identified in the Contractor's Safety Plan, and U.S. Coast Guard Base Kodiak's Hazardous Waste Management Guide included in the appendices of these Project Specifications, see Attachment 16 - "Base Kodiak's Hazardous Waste Management Guide". Address procedures and proper handling of hazardous materials, including the appropriate transportation requirements.

This portion of the EPP shall identify the management procedures for hazardous waste to be generated. Include procedures for pollution prevention and hazardous waste minimization. As a minimum, include the following:

a. List of the types of hazardous wastes expected to be generated.

b. Procedures to ensure a written waste determination is made for appropriate wastes that are to be generated.

c. Sampling/analysis plan, including laboratory method(s) that will be used for waste determinations and copies of relevant laboratory certifications.

d. Methods and proposed locations for hazardous waste accumulation/storag
e. Hazardous waste shall be managed in tanks or containers subject to the requirements in 40 CFR sections 262.16(b)(2) and (3).

e. Management procedures for storage, labeling, transportation, and disposal of waste (treatment of waste is not allowed unless specifically noted).

f. Management procedures and regulatory documentation ensuring disposal of hazardous waste complies with Land Disposal Restrictions (40 CFR 268).

g. Management procedures for recyclable hazardous materials such as lead-acid batteries, used oil, and similar.

h. Used oil management procedures in accordance with 40 CFR 279; Hazardous waste minimization procedures.

i. Plans for the disposal of hazardous waste by permitted facilities; and Procedures to be employed to ensure required employee training records are maintained.

j. Procedure to comply with the hazardous waste manifest requirements at 40 CFR part 262, subpart B and the pre-transport requirements at 40 CFR sections 262.30 through 262.33.

1.9.2.11 Air Pollution Control

1.9.2.11.1 Dirt and Dust Control Plan

Include truck and material haul routes along with a Dirt and Dust Control Plan for controlling dirt, debris, and dust on Installation roadways. As a minimum, identify in the plan the subcontractor and equipment for cleaning along the haul route and measures to reduce dirt, dust, and debris from roadways.

Where the Project involves any interior Work, include a plan for controlling dust and debris in interior environments.

1.9.2.11.2 Pollution Generating Equipment

Identify air pollution generating equipment or processes that may require federal, state, or local Permits under the Clean Air Act. Determine requirements based on any current U.S. Coast Guard Installation Permits and the impacts of the Project. Provide a list of all fixed or mobile equipment, machinery or operations that could generate air emissions during the Project to the Contracting Officer.

1.9.2.11.3 Stationary Internal Combustion Engines

Identify portable and stationary internal combustion engines that will be supplied, used or serviced. Comply with 40 CFR 60 Subpart IIII, 40 CFR 60 Subpart JJJJ, 40 CFR 63 Subpart ZZZZ, and local regulations as applicable. At minimum, include the make, model, serial number, manufacture date, size (engine brake horsepower), and EPA emission certification status of each engine. Maintain applicable records and log hours of operation and fuel use. Logs must include reasons for operation and delineate between emergency and non-emergency operation.

1.9.2.11.4 Refrigerants

Identify management practices to ensure that heating, ventilation, and air conditioning (HVAC) Work involving refrigerants complies with 40 CFR 82

requirements. Technicians must be certified, maintain copies of certification on-site, use certified equipment and log Work that requires the addition or removal of refrigerant. Any refrigerant reclaimed is the property of the Contractor. Contractor shall be responsible for shipping and recycling reclaimed refrigerants. Submit certification of recycle to the Contracting Officer

1.9.2.11.5 Air Pollution-engineering Processes

Identify planned air pollution-generating processes and management control measures (including, but not limited to, spray painting, abrasive blasting, demolition, material handling, fugitive dust, and fugitive emissions). Log hours of operations and track quantities of materials used.

1.9.2.11.6 Compliant Materials

Provide the Government a list of and SDSs for all hazardous materials proposed for use on-site. Materials must be compliant with all Clean Air Act regulations for emissions including solvent and volatile organic compound contents, and applicable National Emission Standards for Hazardous Air Pollutants requirements. The Government may alter or limit use of specific materials as needed to meet the U.S. Coast Guard Installation's Permit requirements for emissions. The Environmental Protection Plan shall include methods for maintaining SDS for all products introduced to the Work, Project Site, and/or U.S. Coast Guard Property.

1.9.2.12 Noise Control

Describe procedures to mitigate noise generating construction activities and equipment concerns.

Anticipated noise concerns include: Disruption to existing operations and occupied spaces;.

1.9.2.13 Protection of Historical, Archaeological, and Cultural Resources

Describe the methods and objectives for Protection of Historical, Archaeological, and Cultural Resources.

Identify all such resources that exist at the Project Site or that may be impacted by the Work. Reference reports, commitments, approvals, and mitigation measures that have been provided and/or coordinated with agencies such as the State of Alaska Office of History and Archaeology (OHA).

Identify the procedures and mitigation measures that will be incorporated into the Work for the protection of historical, archaeological, and cultural resources.

1.9.2.14 Incident Reporting

Provide an outline to summarize, communicate, and to clearly detail the proper procedures, notifications, reporting and treatment of discoveries, emergencies, and other potential incidents or issues, as required by all items to be included in the EPP..

1.9.2.15 Record Keeping and Reporting

Review the Project's Submittal Register and indicate all environmental submittal requirements. Identify critical path items.

Describe all reporting and notification procedures required by this Project Specification Section, including other Project Specification Sections that may be referenced herein.

Identify Project Close Out requirements and how compliance with the associated procedural requirements will be achieved. Include a copy of any regulatory notifications or Permits generated or received by the Contractor (e.g., NOIs, NOTs, letters of authorization, etc.). Make separate parts within this section that correspond to each submittal listed under paragraph CLOSEOUT SUBMITTALS in this Specification Section.

1.10 ENVIRONMENTAL RECORDS BINDER

Maintain on-site a separate three-ring Environmental Records Binder and submit to Contracting Officer at the completion of the Project. Make separate parts within the binder that correspond to each submittal listed under paragraph CLOSEOUT SUBMITTALS in this Specification Section.

PART 2 PRODUCTS

2.1 BANNED PRODUCTS

The following listed products are prohibited by law and U.S. Coast Guard regulation from incorporation into the Work:

a. Any hazardous materials that will create EPA "P" listed waste.

b. Extremely Flammable Adhesives: In accordance with 16 CFR 1302 non-aerosol contact adhesives and similar liquids or semi-liquids with a flash point below 20F and consisting of 70% - 90% solvents by weight are prohibited.

c. Lead-Based Paint (LBP): In accordance with 16 CFR 1303, paint and similar surface coating materials that contain lead or lead compounds in excess of 0.06% of the dry film weight are prohibited. Products and furnishings coated with LBP are also prohibited.

d. Asbestos Containing Material (ACM): In accordance with 16 CFR 1304, any patching or binding ACM that must be mixed with water or that is a ready-mix paste and does not contain resins or other bonding agents is prohibited. In accordance with 40 CFR 61.148, the use of ACM for insulating and covering materials is prohibited if the material will be friable after installation.

e. CFC's: In accordance with 40 CFR 82, air horns, cleaning fluid, flexible plastics, foam products aerosols and pressurized containing CFC's are prohibited.

f. PCB's: In accordance with 40 CFR 761, items with a PCB concentration equal to or greater than 50 ppm are prohibited. Furthermore, no products containing any concentration of PCB's are permitted.

g. Methylene Chloride or products containing this chemical (e.g.,

strippers and solvents).

h. Methyl Ethyl Ketone or products containing this chemical.

i. Hexavalent Chromium Cr(VI) (Hex Chrome) or products containing this compound.

j. Refrigerants/Ozone Depleting Substances not allowed by law or regulations.

k. Urea Formaldehyde and any products containing this chemical (e.g., resins, foam insulation, lumber, etc.)

PART 3 EXECUTION

3.1 PROTECTION OF NATURAL RESOURCES

a. Minimize interference with, disturbance to, and damage to fish, wildlife, and plants, including their habitats. Prior to the commencement of activities, consult with the Contracting Officer regarding rare species or sensitive habitats that need to be protected. The protection of rare, threatened, and endangered animal and plant species identified, including their habitats, is the Contractor's responsibility.

b. Preserve the natural resources within the Project boundaries and outside the limits of permanent Work. . Confine construction activities to within the limits of the Work indicated or specified.

3.1.1 Flow Ways

Do not alter water flows or otherwise significantly disturb the native habitat adjacent to the Project and critical to the survival of fish and wildlife, except as specified and permitted.

3.1.2 Vegetation

a. Except in areas to be cleared, do not remove, cut, deface, injure, or destroy trees or shrubs without the Contracting Officer's permission. Do not fasten or attach ropes, cables, or guys to existing nearby trees for anchorages unless authorized by the Contracting Officer. Where such use of attached ropes, cables, or guys is authorized, the Contractor is responsible for any resultant damage.

b. Protect existing trees that are to remain to ensure they are not injured, bruised, defaced, or otherwise damaged by construction operations. Remove displaced rocks from uncleared areas. Coordinate with the Contracting Officer to determine appropriate action for trees and other landscape features scarred or damaged by equipment operations.

3.1.3 Streams

a. Stream crossings must allow movement of materials or equipment without violating water pollution control standards of the federal, state, and local governments. Construction of stream crossing structures must be in compliance with any required Permits including,

but not limited to, Clean Water Act Section 404, and Section 401 Water Quality.

b. The Contracting Officer's approval and appropriate Permits are required before any equipment will be permitted to ford live streams. In areas where frequent crossings are required, install temporary culverts or bridges. Obtain Contracting Officer's approval prior to installation. Remove temporary culverts or bridges upon completion of Work, and repair the area to its original condition unless otherwise required by the Contracting Officer.

3.2 STORMWATER

All ground disturbing activities associated with this Project must have coverage under the Alaska Construction General Permit for Stormwater Discharges for Large and Small Construction Activities, Alaska Excavation Dewatering General Permit and the Base Kodiak Digging Permit.

Do not discharge stormwater from Work Sites to the sanitary sewer. If the water is noted or suspected of being contaminated, it may only be released to the storm drain system if the discharge is specifically permitted under APDES. Obtain authorization in advance from ADEC for any release of contaminated water.

Temporary weather protection such as tarps shall be used to cover materials and unpainted metal supplies as necessary to prevent runoff, especially metal runoff to stormwater.

3.2.1 Erosion and Sediment Control Measures

All erosion control Work shall be considered incidental to the other items in the Contract. Provide erosion and sediment control measures in accordance with state and local laws and regulations. Preserve vegetation to the maximum extent practicable.

Erosion control inspection reports may be compiled as part of a stormwater pollution prevention plan inspection reports.

The Contractor shall install temporary erosion control structures as necessary and/or as directed by the Contracting Officer. They shall be maintained in effective operating condition at all times. Best Management Practices (BMPs) shall be cleaned, repaired, or replaced as necessary. Prior to completion of Work, the Contractor shall clean and remove all silt and debris from the BMPs.

Earthwork brought to final grade shall be immediately finished. Protect side and back slopes upon completion of rough grading. Plan and conduct earthwork to minimize the duration of exposure of unprotected soils. Use the following methods to prevent erosion, control sedimentation, and prevent waterborne soil from entering surface waters, ditches, and storm drain inlets.

3.2.1.1 Erosion Control

The Contractor shall be responsible for all Permits required near streams and water bodies and, therefore, shall be responsible for the quality of the run-off water from the Project Site and for any fine and penalties resulting from the Project Work.

Prevent erosion by mulching, Compost Blankets, Geotextiles, temporary slope drains,. Stabilize slopes by sodding, or such combination of these methods necessary for effective erosion control. Use of hay bales is prohibited.

Temporary erosion control structures shall remain in place until replaced by permanent erosion control Work, or until the Contracting Officer, U.S. Coast Guard Civil Engineering Unit Juneau Environmental Branch and U.S. Coast Guard Base Kodiak Facilities Engineering Environmental Division approves their removal.

3.2.2 Work Area Limits

Mark the areas that need not be disturbed under this Contract prior to commencing construction activities. Mark or fence isolated areas within the general Work Area that are not to be disturbed. Protect monuments and markers before construction operations commence. Where construction operations are to be conducted during darkness, any markers must be visible in the dark. Personnel must be knowledgeable of the purpose for marking and protecting particular objects.

3.2.3 Contractor Facilities and Work Areas

Place field offices, staging areas, stockpile storage, and temporary buildings in areas designated on the Drawings or as directed by the Contracting Officer. Move or relocate the Contractor facilities only when approved by the Government. Provide erosion and sediment controls for on-site borrow and spoil areas to prevent sediment from entering nearby waters. Control temporary excavation and embankments for plant or Work Areas to protect adjacent areas.

3.3 SURFACE AND GROUNDWATER

3.3.1 General

Contaminated groundwater may occur during excavation activities. The Contractor shall provide handling, monitoring, testing, and treatment as required by the General Permit for Excavation Dewatering.

The Contractor shall coordinate all aspects of the Work involving contaminated groundwater and dewatering with the approved EMP, EPP, Project Specifications, and all permitting activities.

The Contractor shall also be responsible for handling, stockpiling, transportation, and disposal of any contaminated groundwater.

3.3.2 Dewatering

a. Construction operations for dewatering, removal of cofferdams, tailrace excavation, and tunnel closure must be constantly controlled to maintain compliance with existing state water quality standards and designated uses of the surface water body.

b. Comply with the State of Alaska water quality standards including any anti-degradation provisions.

c. Do not discharge any excavation ground water to the sanitary sewer,

storm drains, or to surface waters without prior specific authorization in writing from the Alaska Department of Environmental Conservation and the COR.

d. Discharge of hazardous substances or contaminated environmental media will not be permitted under any circumstances. Use sediment control BMPs to prevent Work Site runoff from directly entering any storm drain or surface waters.

3.3.3 Waters of the United States

Do not enter, disturb, destroy, or allow discharge of contaminants or fill material into Waters of the United States. The protection of Waters of the United States is the Contractor's responsibility. Authorization to enter specific waters of the United States does not relieve the Contractor from any obligation to protect other Waters of the United States within, adjacent to, or in the vicinity of the Project Site and associated boundaries.

3.4 SPILL MEDIA AND CONTAMINATED ENVIRONMENTAL MEDIA

The Contractor shall coordinate all aspects of the Work involving spill media and contaminated environmental media with the Contaminated Environmental Contingency Plan, approved Contractor EPP,Project Specifications, and all related permitting activities.

At a minimum, and as required to satisfy ADEC requirements, the Contractor will be responsible for providing field screening and testing services by a QEP for all ground disturbing activities.

Field screening shall include screening and testing services for spill media and suspected contaminated environmental media. Field screening and testing services shall be performed by a Qualified Environmental Professional in accordance with 18 AAC 75 Section 333.

The Contractor shall be responsible for handling, transportation, and disposal of any spill media or contaminated environmental media in accordance with 18 AAC 75 Article 3. Following sampling, all excess environmental media shall be removed from the Project Site.

Long term stockpiling of spill media or contaminated environmental media at the Project Site is not acceptable. Storing spill media or contaminated environmental media in holding areas after Project Close-Out is not acceptable.

The Contractor shall also be responsible for completion of the ADEC Contaminated Sites Program Transport, Treatment, and Disposal Approval Form for Contaminated Environmental Media as well as all associated sampling, screening, handling, stockpiling, transportation, and disposal of any spill media or contaminated environmental media including associated regulatory agency approvals, as detailed in the EPP and EMP.

Reference the following Project Specification Sections for additional requirements:

31 11 00 CLEARING AND GRUBBING

3.5 PROTECTION OF HISTORICAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

Protection of all historical, archaeological, and culturally significant resources is the Contractor's responsibility. Prior to the commencement of activities, consult with the Contracting Officer regarding protection of any known historical, archaeological, and culturally significant resources.

If, during excavation or other construction activities, any previously unidentified or unanticipated historical, archaeological, and cultural resources are discovered or found, activities that may damage or alter such resources will be suspended. Resources covered by this paragraph include, but are not limited to: any human skeletal remains or burials; artifacts; shell, midden, bone, charcoal, or other deposits; rock or coral alignments, pavings, wall, or other constructed features; and any indication of agricultural or other human activities. Upon such discovery or find, immediately notify the Contracting Officer so that the appropriate authorities may be notified and a determination made as to their significance and what, if any, special disposition of the finds should be made. Cease all activities that may result in impact to or the destruction of these resources. Secure the area and prevent employees or other persons from trespassing on, removing, or otherwise disturbing such resources.

3.6 AIR RESOURCES

Comply with all local, state, and federal regulations including 40 CFR 64 and state air emission and performance laws and standards.

3.6.1 Air Permits

Notify the Contracting Officer prior to bringing equipment, assembled or unassembled, onto the Installation , so that Air Permits may be updated. Necessary permitting time must be considered in regard to construction activities.

3.6.2 Oil or Dual-fuel Boilers and Furnaces

Provide product data and details for new, replacement, or relocated fuel fired boilers, heaters, or furnaces to theContracting Officer. Data to be reported include: equipment purpose (water heater, building heat, process), manufacturer, model number, serial number, fuel type (oil type, gas type) size (MMBTU heat input). Provide in accordance with paragraph PRECONSTRUCTION AIR PERMITS.

3.6.3 Burning

Burning is prohibited at all U.S. Coast Guard District 17 Installations and Project Sites.

3.6.4 Class I and II ODS Prohibition

Class I and Class II ODS are defined in Section, 602(a) and (b), of The Clean Air Act. Prevent discharge of Class I and Class II ODS to the atmosphere. Place recovered ODS in cylinders meeting AHRI Guideline K suitable for the type ODS (filled to no more than 80 percent capacity) and provide appropriate labeling. Recovered ODS shall be removed from Government property and disposed of in accordance with 40 CFR 82, unless

otherwise directed by the Contracting Officer.
Products, equipment and appliances containing ODS in a sealed, self-contained system (e.g. residential refrigerators and window air conditioners) shall be disposed of in accordance with 40 CFR 82. Submit Receipts or bills of lading, as specified.
Certified technicians must perform refrigerant work using EPA-approved recovery equipment. Releases of ODS or refrigerants to the atmosphere is strictly prohibited.
No more than one type of ODS is permitted in each container. A warning/hazardous label shall be applied to the containers in accordance with Department of Transportation regulations. All cylinders including but not limited to fire extinguishers, spheres, or canisters containing an ODS shall have a tag with the following information:
a. Activity name and unit identification code
b. Activity point of contact and phone number
c. Type of ODS and pounds of ODS contained
d. Date of shipment
e. National stock number

3.6.5 Accidental Venting of Refrigerant

Accidental venting of a refrigerant is a release and must be reported immediately to the Contracting Officer.

3.6.6 EPA Certification Requirements

Heating and air conditioning technicians must be certified through an EPA-approved program. Maintain copies of certifications at the employees' places of business; technicians must carry certification wallet cards, as provided by environmental law.

3.6.7 Dust Control

Keep dust down at all times, including during nonworking periods. Dry power brooming will not be permitted. Instead, use vacuuming, wet mopping, wet sweeping, or wet power brooming. Air blowing will be permitted only for cleaning nonparticulate debris such as steel reinforcing bars. Only wet cutting will be permitted for cutting concrete blocks, concrete, and bituminous concrete. Do not unnecessarily shake bags of cement, concrete mortar, or plaster. Since these products contain Crystalline Silica, comply with the applicable OSHA standard, 29 CFR 1910.1053 or 29 CFR 1926.1153 for controlling exposure to Crystalline Silica Dust.

3.6.7.1 Particulates

Dust particles, aerosols and gaseous by-products from construction activities, and processing and preparation of materials (such as from asphaltic batch plants) must be controlled at all times, including weekends, holidays, and hours when Work is not in progress. Maintain excavations, stockpiles, haul roads, permanent and temporary access roads, plant sites, spoil areas, borrow areas, and other Work Areas within or outside the Project boundaries free from particulates that would exceed 40 CFR 50, state, and local air pollution standards or that would cause a hazard or a nuisance. Sprinkling, chemical treatment of an approved type, baghouse, scrubbers, electrostatic precipitators, or other methods will be permitted to control particulates in the Work Area. Sprinkling, to be efficient, must be repeated to keep the disturbed area damp. Provide

sufficient, competent equipment available to accomplish these tasks. Perform particulate control as the Work proceeds and whenever a particulate nuisance or hazard occurs. Comply with state and local visibility regulations.

3.6.7.2 Abrasive Blasting

Generation and accumulation of spent abrasive blasting media are subject to the hazardous waste generator regulations. Manage spent blasting media in accordance with federal, state, local regulations and contract spec 1.9.2.10.2 Control and Disposal of Hazardous Waste; and 3.8 Waste Management & Disposal.

Blasting operations cannot be performed without prior approval of the Contracting Officer. The use of silica sand is prohibited in sandblasting.

Provide tarpaulin drop cloths and windscreens to enclose abrasive blasting operations to confine and collect dust, abrasive agent, paint chips, and other debris.

3.6.8 Odors

Control odors from construction activities. The odors must be in compliance with state regulations and local ordinances and may not constitute a health hazard.

3.7 WASTE MINIMIZATION

Minimize the use of hazardous materials and the generation of waste in accordance with the procedures identified in the approved EPP and in accordance with U.S. Coast Guard standards.

3.7.1 Salvage, Reuse and Recycle

To the extent practicable, all scrap metal must be sent for reuse or recycling and will not be disposed of in a landfill.

Include the name, physical address, and telephone number of the hauler, if transported by a franchised solid waste hauler. Include the destination and, unless exempted, provide a copy of the state or local Permit (cover) or license for recycling.

3.7.2 Nonhazardous Solid Waste Diversion Report

Maintain an inventory of nonhazardous solid waste diversion and disposal of construction and demolition debris. Submit a report to the Contracting Officer on the first working day after each fiscal year quarter, starting the first quarter that nonhazardous solid waste has been generated. Include the following in the report:

Construction and Demolition (C&D) Debris Disposed	,cubic meters
C&D Debris Recycled	,cubic meters

Construction and Demolition (C&D) Debris Disposed	,cubic meters
Total C&D Debris Generated	,cubic meters
Waste Sent to Waste-To-Energy Incineration Plant (This amount should not be included in the recycled amount)	,cubic meters

3.8 WASTE MANAGEMENT AND DISPOSAL

Establishment of any waste accumulation area requires approval by the U.S. Coast Guard Installation and Contracting Officer.

3.8.1 Waste Determination Documentation

Complete a Waste Determination form (provided at the pre-construction conference) for Contractor-derived wastes to be generated. All potentially hazardous solid waste streams that are not subject to a specific exclusion or exemption from the hazardous waste regulations (e.g., scrap metal, domestic sewage) or subject to special rules, (lead-acid batteries and precious metals) must be characterized in accordance with the requirements of 40 CFR 261 or corresponding applicable state or local regulations. Base waste determination on user knowledge of the processes and materials used, and analytical data when necessary. Consult with the Contracting Officer for guidance on specific requirements. Attach support documentation to the Waste Determination form. As a minimum, provide a Waste Determination form for the following waste (this listing is not inclusive): oil- and latex -based painting and caulking products, solvents, adhesives, aerosols, petroleum products, and containers of the original materials.

3.8.1.1 Sampling and Analysis of Waste

3.8.1.1.1 Waste Sampling

Sample waste in accordance with EPA SW-846. Clearly mark each sampled drum or container with the Contractor's identification number, and cross reference to the chemical analysis performed.

3.8.1.1.2 Laboratory Analysis

Follow the analytical procedure and methods in accordance with the 40 CFR 261. Provide copies of chain of custody forms, analytical results and reports to the Contracting Officer.

3.8.1.1.3 Analysis Type

Identify hazardous waste by analyzing for the following characteristics: toxicity based on TCLP results,.

3.8.2 Solid Waste Management

3.8.2.1 Project Waste Disposal Documentation Report

Contractor must maintain Hazardous and Non-Hazardous Waste Manifests and submit LDR forms in accordance with 49 CFR 172 and EPA, State, and Local requirements and regulations. Include copies of all manifests and LDR forms in the Project's Solid Waste Disposal Documentation Reports.

In addition, provide copies of the waste handling facilities' weight tickets, receipts, bills of sale, and other sales documentation. In lieu of sales documentation, a statement indicating the disposal location for the solid waste that is signed by an employee authorized to legally obligate or bind the firm may be submitted. The sales documentation must include the receiver's tax identification number and business, EPA or state registration number, along with the receiver's delivery and business addresses and telephone numbers. For each solid waste retained for the Contractor's own use, submit the information previously described in this paragraph on the solid waste disposal report. Prices paid or received do not have to be reported to the Contracting Officer unless required by other provisions or Specifications of this Contract or public law.The Contractor shall provide the TRI dataset threshold calculations information in accordance with Emergency Planning and Community Right-to-Know Act (EPCRA), also known as SARA Title III, codified in the regulations at 40 CFR Chapter I Subchapter J Sections 302, 355, 370 and 372, to include:
* Off-site transfers of TRI chemicals for disposal and/or offsite treatment of contaminated media, including address of receiving facility, analyte concentration, and volume shipped (example spreadsheet available by request from COR)
* On-site releases and other disposal of toxic chemicals to air, surface water and land
* On-site recycling, treatment and energy recovery associated with TRI chemicals (ie processing contaminated waste water from dewatering activities)
* Pollution prevention activities at facilities
* Releases of lead, mercury, dioxin and other persistent, bio accumulative, and toxic (PBT) chemicals

Contractor is not required to submit the TRI-R Report to Federal, State, and Local regulatory agencies.

3.8.2.2 Control and Management of Solid Wastes

Pick up solid wastes, and place in covered containers that are regularly emptied. Do not prepare or cook food on the Project Site. Prevent contamination of the Site or other areas when handling and disposing of wastes. At Project completion, leave the areas clean. Employ segregation measures so that no hazardous or toxic waste will become co-mingled with non-hazardous solid waste. Transport solid waste off Government property and dispose of it in compliance with 40 CFR 260, state, and local requirements for solid waste disposal. A Subtitle D RCRA permitted landfill is the minimum acceptable off-site solid waste disposal option. Verify that the selected transporters and disposal facilities have the necessary Permits and licenses to operate. Solid waste disposal off-site must comply with most stringent local, state, and federal requirements, including 40 CFR 241, 40 CFR 243, and 40 CFR 258.

Manage hazardous material used in construction, including but not limited

to, aerosol cans, waste paint, cleaning solvents, contaminated brushes, and used rags, in accordance with 49 CFR 173.

3.8.3 Control and Management of Hazardous Waste

Do not dispose of hazardous waste on Government property. Do not discharge any waste to a sanitary sewer, storm drain, or to surface waters or conduct waste treatment or disposal on Government property without written approval of the Contracting Officer.

3.8.3.1 Hazardous Waste/Debris Management

Identify construction activities that will generate hazardous waste or debris. Provide a documented waste determination for resultant waste streams. Identify, label, handle, store, and dispose of hazardous waste or debris in accordance with federal, state, and local regulations, including 40 CFR 261, 40 CFR 262, 40 CFR 263, 40 CFR 264, 40 CFR 265, 40 CFR 266, and 40 CFR 268.

Contractor must provide 35 and 45 day notification and updates to the Contracting Officer for any Hazardous Waste Manifests generated.

Manage hazardous waste in accordance with the approved Hazardous Waste Management Section of the EPP. Store hazardous wastes in approved containers in accordance with 49 CFR 173 and 49 CFR 178. Hazardous waste generated within the confines of Government facilities is identified as being generated by the Government. Prior to removal of any hazardous waste from Government property, hazardous waste manifests must be signed and reviewed by the Installation or the Contracting Officer. Do not bring hazardous waste onto Government property. Provide the Contracting Officer with a copy of waste determination documentation for any solid waste streams that have any potential to be hazardous waste or contain any chemical constituents listed in 40 CFR 372-SUBPART D.

3.8.3.2 Waste Storage/Satellite Accumulation

Accumulate hazardous waste at satellite accumulation points and in compliance with 40 CFR 262.34 and applicable state or local regulations. Individual waste streams will be limited to 55 gallons of accumulation (or 1 quart for acutely hazardous wastes). If the Contractor expects to generate hazardous waste at a rate and quantity that makes satellite accumulation impractical, the Contractor may request a temporary 90 day accumulation point be established. Submit a request in writing to the Contracting Officer and provide the following information (Attach Site Plan to the Request):

Contract Number	
Contractor	
Haz/Waste or Regulated Waste POC	
Phone Number	
Type of Waste	
Source of Waste	
Emergency POC	

Contract Number	
Phone Number	
Location of the Site	

Attach a Waste Determination form for the expected waste streams. Additional compliance requirements (e.g., training and contingency planning) that may be required are the responsibility of the Contractor. Barricade the designated area where waste is being stored and post a sign identifying as follows:

"DANGER - UNAUTHORIZED PERSONNEL KEEP OUT"

3.8.3.3 Hazardous Waste Disposal

3.8.3.3.1 Responsibilities for Contractor's Disposal

Provide hazardous waste manifest to the Contracting Officerfor review, approval, and signature prior to shipping waste off Government property.

3.8.3.3.1.1 Services

Provide service necessary for the final treatment or disposal of the hazardous material or waste in accordance with 40 CFR 260, local, and state, laws and regulations, and the terms and conditions of the Contract within 60 days after the materials have been generated. These services include necessary personnel, labor, transportation, packaging, detailed analysis (if required for disposal or transportation, include manifesting or complete waste profile sheets, equipment, and compile documentation). Submit disposal documentation for hazardous and regulated waste.

3.8.3.3.1.2 Samples

Obtain a representative sample of the material generated for each job done to provide waste stream determination.

3.8.3.3.1.3 Analysis

Analyze each sample taken and provide analytical results to the Contracting Officer. As back up documentation, provide analytical sampling in a Microsoft Excel spreadsheet. See paragraph WASTE DETERMINATION DOCUMENTATION.

3.8.3.3.1.4 Labeling

Determine the Department of Transportation's (DOT's) proper shipping names for waste (each container requiring disposal) and demonstrate to the Contracting Officer how this determination is developed and supported by the sampling and analysis requirements contained herein. Label all containers of hazardous waste with the words "Hazardous Waste" or other words to describe the contents of the container in accordance with 40 CFR 262.31 and applicable state or local regulations.

3.8.3.4 Universal Waste Management

Manage the following categories of universal waste in accordance with federal, state, and local requirements and U.S. Coast Guard instructions:

a. Batteries as described in 40 CFR 273.2

b. Lamps as described in 40 CFR 273.5

c. Mercury-containing equipment as described in 40 CFR 273.4
Mercury is prohibited in the construction of this facility, unless specified otherwise, and with the exception of mercury vapor lamps and fluorescent lamps. Dumping of mercury-containing materials and devices such as mercury vapor lamps, fluorescent lamps, and mercury switches, in rubbish containers is prohibited. Remove without breaking, pack to prevent breakage, and transport out of the activity in an unbroken condition for disposal as directed.

d. Aerosol cans as described in 40 CFR 273.6

3.8.3.5 Electronics End-of-Life Management

Recycle or dispose of electronics waste, including, but not limited to, used electronic devices such computers, monitors, hard-copy devices, televisions, mobile devices, in accordance with 40 CFR 260-262, state, and local requirements, and U.S. Coast Guard instructions.

3.8.3.6 Disposal Documentation for Hazardous and Regulated Waste

Contact the Contracting Officer for the facility RCRA identification number that is to be used on each manifest.

3.8.4 Releases/Spills of Oil and Hazardous Substances

3.8.4.1 Response and Notifications

Spill reporting must be in accordance with all federal, state, and local requirements and regulationsas well as Base Kodiak's Integrated Emergency Response & Prevention Plan (IERPP) available at the following website:

https://dec.alaska.gov/Applications/SPAR/PublicMVC/IPP/ApprovedCPlans/.

Exercise due diligence to prevent, contain, and respond to spills of hazardous material, hazardous substances, hazardous waste, sewage, regulated gas, petroleum, lubrication oil, and other substances regulated in accordance with 40 CFR 300. Maintain spill cleanup equipment and materials at the Project Site. In the event of a spill, take prompt, effective action to stop, contain, curtail, or otherwise limit the amount, duration, and severity of the spill/release. In the event of any releases of oil and hazardous substances, chemicals, or gases; immediately (within 15 minutes) notify the U.S. Coast Guard Installation's Command Duty Officer and Contracting Officer.

In the event of a spill or accidental discharge:

a. Contact the U.S. Coast Guard Base Kodiak Police Department First.

b. Then contact the following personnel in this order:

1) U.S. Coast Guard Base Kodiak's Command Duty Officer/Officer on Duty.

2) U.S. Coast Guard Base Kodiak Facility Engineering Watchstander.

3) U.S. Coast Guard Base Kodiak Facilities Engineering Environmental Division Chief/Readiness Officer.

4) Contracting Officer.

Submit verbal and written notifications as required by the federal (40 CFR 300.125 and 40 CFR 355), state, local regulations and instructions. Provide copies of the written notification and documentation that a verbal notification was made within 20 days. Spill response must be in accordance with 40 CFR 300 and applicable state and local regulations. Contain and clean up these spills without cost to the Government.

3.8.4.2 Clean Up

Clean up hazardous and non-hazardous waste spills. Reimburse the Government for costs incurred including sample analysis materials, clothing, equipment, spill clean-up material disposal, and labor if the Government will initiate its own spill cleanup procedures, for Contractor-responsible spills, when: Spill cleanup procedures have not begun within one hour of spill discovery/occurrence; or, in the Government's judgment, spill cleanup is inadequate and the spill remains a threat to human health or the environment.

3.9 HAZARDOUS CONSTRUCTION MATERIAL MANAGEMENT

Comply with all requirements of the approved EPP and Safety Plan, and the Project Specifications including, but not limited to, this Section.

Do not bring hazardous material onto Government property that does not directly relate to requirements for the performance of this Contract. Submit an SDS and estimated quantities to be used for each hazardous material to the Contracting Officer prior to bringing the material on the U.S. Coast Guard Installation or Project Site. Typical materials requiring SDS and quantity reporting include, but are not limited to, oil and latex based painting and caulking products, solvents, adhesives, aerosol, and petroleum products. Use hazardous materials in a manner that minimizes the amount of hazardous waste generated. Containers of hazardous materials must have National Fire Protection Association labels or their equivalent. Certify that hazardous materials removed from the Site are hazardous materials and do not meet the definition of hazardous waste, in accordance with 40 CFR 261.

Maintain on site throughout the duration of construction: Safety Data Sheets (SDS) in accordance with 48 CFR 52.223-3, Hazardous Material Identification and Material Safety Data, for materials required by federal or State of Alaska environmental laws, or for which the permissible Exposure Limit (PEL), Ceiling Limit, Short Term Exposure Limit (STEL), or Threshold Limit Value (TLV) has been established, and the products are introduced to Government property.

3.10 PREVIOUSLY USED EQUIPMENT

Clean previously used construction equipment prior to bringing it onto the Project Site. Equipment must be free from soil residuals, egg deposits from plant pests, noxious weeds, and plant seeds. Consult with the U.S. Department of Agriculture jurisdictional office for additional cleaning requirements.

3.11 CONTROL AND MANAGEMENT OF LIGHTING BALLAST AND LAMPS CONTAINING PCBS

Manage and dispose of contaminated waste in accordance with 40 CFR 761.

3.12 PETROLEUM, OIL, LUBRICANT (POL) STORAGE AND FUELING

POL products include flammable or combustible liquids, such as gasoline, diesel, lubricating oil, used engine oil, hydraulic oil, mineral oil, and cooking oil. Store POL products and fuel equipment and motor vehicles in a manner that affords the maximum protection against spills into the environment. Manage and store POL products in accordance with EPA 40 CFR 112, and other federal, state, regional, and local laws and regulations. Use secondary containments, dikes, curbs, and other barriers, to prevent POL products from spilling and entering the ground, storm or sewer drains, stormwater ditches or canals, or navigable waters of the United States. Describe in the EPP (see paragraph ENVIRONMENTAL PROTECTION PLAN) how POL tanks and containers must be stored, managed, and inspected and what protections must be provided. Storage of oil, including fuel, on the Project Site is not allowed. Fuel must be brought to the Project Site each day that Work is performed.

3.12.1 Used Oil Management

Manage used oil generated on Site in accordance with 40 CFR 279. Contractor shall be responsible for disposal of all used oil. Disposal shall be at the Contractor's expense. Determine if any used oil generated while on-site exhibits a characteristic of hazardous waste. Used oil containing 1,000 parts per million of halogenated solvents is considered a hazardous waste. Used oil mixed with a hazardous waste is also considered a hazardous waste, commingling of used oil with hazardous waste is prohibited. Dispose in accordance with paragraph HAZARDOUS WASTE DISPOSAL.

3.12.2 Oil Storage Including Fuel Tanks

Provide secondary containment and overfill protection for oil storage tanks. A spill kit shall be on site at all times. A berm used to provide secondary containment must be of sufficient size and strength to contain the contents of the tanks plus 5 inches freeboard for precipitation. Construct the berm to be impervious to oil for 72 hours that no discharge will permeate, drain, infiltrate, or otherwise escape before cleanup occurs. Use drip pans during oil transfer operations; adequate absorbent material must be on-site to clean up any spills and prevent releases to the environment. Cover tanks and drip pans during inclement weather. Provide procedures and equipment to prevent overfilling of tanks. If tanks and containers with an aggregate aboveground capacity greater than 1320 gallons will be used on-site (only containers with a capacity of 55 gallons or greater are counted), provide and implement a SPCC plan meeting the requirements of 40 CFR 112. Do not bring underground storage tanks to the U.S. Coast Guard Installation or Project Site for Contractor use during a Project. Submit the SPCC plan to the Contracting Officer for approval.

Monitor and remove any rainwater that accumulates in open containment dikes or berms. Inspect the accumulated rainwater prior to draining from a containment dike to the environment, to determine there is no oil sheen present.

3.13 INADVERTENT DISCOVERY OF CONTAMINATED ENVIRONMENTAL MEDIA OR HAZARDOUS WASTES

Follow the procedures outlined in the approved Contaminated Environmental Media Contingency Plan or Final EMP. If contaminated environmental media (e.g., petroleum, oil, and lubricant (POL) contaminated soil, underground storage tanks (USTs), etc.) or suspected hazardous waste is found during construction that was not identified in the Contract Documents, the Contractor shall immediately notify the Contracting Officer and ADEC in accordance with 18 AAC 75, as necessary. Do not disturb this material until authorized by the Contracting Officer.

3.14 POST CONSTRUCTION CLEANUP

Clean up areas used for construction in accordance with with FAR 52.236-12 Cleaning Up. Unless otherwise instructed in writing by the Contracting Officer, remove traces of temporary construction facilities such as haul roads, Work Area, structures, foundations of temporary structures, stockpiles of excess or waste materials, and other vestiges of construction prior to final acceptance of the Work. Grade parking area and similar temporarily used areas to conform with surrounding contours.

-- End of Section --

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SECTION 01 78 00

CLOSEOUT SUBMITTALS
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PART 1 GENERAL

1.1 REFERENCES

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

ASTM INTERNATIONAL (ASTM)

ASTM E1971	(2005; R 2011) Standard Guide for Stewardship for the Cleaning of Commercial and Institutional Buildings

FEDERAL ACQUISITION REGULATIONS (FAR)

FAR 52.243-4	Changes
FAR 52.246-21	Warranty of Construction

1.2 DEFINITIONS

1.2.1 U.S. Coast Guard Warranty Representative

The U.S. Coast Guard Warranty Representative is the U.S. Coast Guard's point of contact who can request a service/warranty call from the Service Warranty Manager. At U.S. Coast Guard Base Kodiak, the BOSS Contractor exercises warranty response.

1.2.2 Emergency

Under this section, emergency is defined as a failure of a component which will cause a safety hazard or cause increasing damage to facility if not immediately corrected.

1.2.3 Routine Response

Loss of operation, or malfunction causing reduced operability of installed equipment.

1.2.4 Warranty Manager

The Warranty Manager is the Contractor's approved point of contact who will be responsible for all management and implementation of Warranty Work during the warranty phase of this Contract.

1.2.5 Warranty Technician

The Warranty Technician is the Contractor's technician or service Contractor capable and equipped to repair the warranty item. Commercial providers may be used for specialized equipment, and are defined as those

companies providing similar commercial services and authorized to provide such services by the by the equipment manufacturers.

1.3 SUBMITTALS

Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-03 Product Data

Final Cleaning

Spare Parts Data

SD-10 Operation and Maintenance Data

Operation and Maintenance Manuals

SD-11 Closeout Submittals

Warranty List

As-Built Drawings

Record Drawings

Equipment Enrollment Forms (EFF)

Final Approved Shop Drawings

1.3.1 Submittal Transmittals

In accordance with Section 01 33 00 SUBMITTAL PROCEDURES, all submittals require a submittal transmittal form and all submittal transmittal forms must be signed by an authorized official of the Contractor, indicating that the Contractor has reviewed the submittal for conformance with all requirements of the Contract documents, in order to be accepted.

1.4 SPARE PARTS DATA

Submit two copies of the Spare Parts Data list.

a. Indicate manufacturer's name, part number, nomenclature, and stock level required for maintenance and repair. List those items that may be standard to the normal maintenance of the system.

1.5 WARRANTY MANAGEMENT

1.5.1 General Requirements

This Section includes responsibilities in addition to the requirements of Contract Clause FAR 52.246-21, Warranty of Construction and any other extended warranty called for, or extended as a normal part of commercial product practice. The intent of this section is to provide a Warranty program to ensure specific components provided in this Contract will

function optimally for their useful design life as defined by the manufacturers and keep their warranties intact. All other manufacturer's extended warranties shall be extended in behalf of the Government, with documentation provided to the Government.

Applicability:

The Contractor shall provide all product warranties as indicated in the individual technical Specification sections. Product warranties shall be obtained directly from the manufacturer or vendor. Such warranties shall be in written format, either standard warranties issued with the product or a letter signed by an official with the authority to so obligate the manufacturer.

Effective Date:

The effective date of product warranties shall be based on the date products are approved for payment by the Contracting Officer. The Contractor shall accurately record the delivery of all materials to the Project Site on the Contract Daily Report. The effective date of product warranties shall be based on the date products are accepted by the Contracting Officer. Normally, this will occur at final acceptance, unless the Government takes earlier use and possession. Progress payment for materials delivered on-site does not imply acceptance.

1.5.2 Performance Bond

The Performance Bond must remain effective throughout the construction period .

a. In the event the Contractor fails to commence and diligently pursue any construction Warranty Work required, the Contracting Officer will have the Work performed by others, and after completion of the Work, will charge the remaining construction warranty funds of expenses incurred by the Government while performing the Work, including, but not limited to administrative expenses.

b. In the event sufficient funds are not available to cover the construction Warranty Work performed by the Government at the Contractor's expense, the Contracting Officer will have the right to recoup expenses from the bonding company.

c. Following oral or written notification of required Construction Warranty Repair Work, respond in a timely manner. Written verification will follow oral instructions. Failure to respond will be cause for the Contracting Officer to proceed against the Contractor.

1.5.3 Pre-Warranty Conference

Prior to Contract completion, and at a time designated by the Contracting Officer, meet with the Contracting Officer to develop a mutual understanding with respect to the requirements of this section. Communication procedures for Contractor notification of construction warranty defects, priorities with respect to the type of defect, reasonable time required for Contractor response, and other details deemed necessary by the Contracting Officer for the execution of the construction warranty will be established/reviewed at this meeting. In connection with these requirements and at the time of the Contractor's quality control

completion inspection, furnish the name, telephone number and address of a licensed and bonded company which is authorized to initiate and pursue Construction Warranty Work action on behalf of the Contractor. This point of contact will be located within the local service area of the warranted construction, be continuously available, and be responsive to Government inquiry on Warranty Work action and status. This requirement does not relieve the Contractor of any of its responsibilities in connection with other portions of this provision.

1.5.4 Contractor's Response to Construction Warranty Service Requirements

All equipment labor and materials required to perform the warranty phase of this Contract is part of the base bid. The Schedule of Prices shall include the cost of the warranty phase of this Contract. This is not an addition to the Contract award price, it is a portion of the award price that must be allocated to cover the warranty phase of this Contract.

The Warranty Manager must respond by phone to coordinate response within the following times:

Emergency warranty call: By phone: 24 hour or less.

Routine: 48 hours or less

The Warranty Technician must respond on-site within the following time periods to restore or stabilize the situation:

Emergency warranty call: 24 hours or less. (An emergency may be downgraded to Routine, after initial response and stabilization.)

Routine: 48 hours or less

Permanent repairs: To be determined

Responsibility for Repairs: It is the responsibility of the Warranty Manager or approved representative to identify the problem and arrange for repairs, including any additional damage related to the problem.

Determination of warranty call authenticity shall be withheld until an on-site response has occurred. The Contractor shall pursue the resolution of the warranty call. The time frames specified above must be complied with and will not be extended pending resolution of whether or not a problem is a warranty issue.

The Warranty Manager shall notify the Contracting Officer immediately upon preliminary determination that the problem reported is not a legitimate warranty call. The Contracting Officer will make the final determination in all cases as to the legitimacy of the warranty call. The Contractor may submit a request for equitable adjustment under FAR 52.243-4, Changes.

If the Contractor fails to correct latent defects or major discrepancies in workmanship or products during the warranty period, the Government maintains the right to adjust the Contract price accordingly, or to correct the Work by a third party and recover costs for such activities from the Contractor's performance bond.

1.5.5 Warranty List

In addition to the submittals listed above, submit a complete Warranty

List within calendar days of completion of the Punch List by the Contracting Officer.

The Warranty List shall include the approved names for Warranty Manager and Technicians with address, phone and FAX numbers, and the start date/end date of the warranty period.

Provide three copies of the list to the Contracting Officer on 8-1/2 x 11 inch paper, heavily laminated.

PART 2 PRODUCTS

None

PART 3 EXECUTION

3.1 AS-BUILT DRAWINGS

The As-Built Drawings shall be a record of the construction as installed and completed by the Contractor. The Contractor shall markup two sets of full size Drawings to show the as-built conditions. These as-built marked prints shall be kept current and available at all times at the Project Site. One copy shall be maintained by, and remain in the possession of, the Contractor. The second copy shall be maintained by the Contractor, but shall remain in the possession of the Contracting Officer.

All changes from the Contract plans, which are made in the Work, or additional information which might be uncovered in the course of construction, shall be accurately and neatly recorded as they occur, by means of details and notes. No construction Work shall be concealed until it has been inspected, approved and recorded.

The as-built marked prints shall be submitted for joint inspection for accuracy and completeness by the Contracting Officer and the Contractor prior to submission of the monthly pay estimate. Two sets of up-to-date as-built marked prints shall be delivered to the Contracting Officer at the time of final inspection for his review, approval, and retention.

3.1.1 Markup Guidelines

Make comments and markup the Drawings complete without reference to letters, memos, or materials that are not part of the As-Built Drawing. Show what was changed, how it was changed, where item(s) were relocated and change related details. These working as-built markup prints must be neat, legible and accurate as follows:

a. Use base colors of red, green, and blue. Color code for changes as follows:

   (1) Special (Blue) - Items requiring special information, coordination, or special detailing or detailing notes.

   (2) Deletions (Red) - Over-strike deleted graphic items (lines), lettering in notes and leaders.

   (3) Additions (Green) - Added items, lettering in notes and leaders.

b. Provide a legend if colors other than the "base" colors of red, green, and blue are used.

c. Add and denote any additional equipment or material facilities, service lines, incorporated under As-Built Revisions if not already shown in legend.

d. Use frequent written explanations on markup Drawings to describe changes. Do not totally rely on graphic means to convey the revision.

e. Use legible lettering and precise and clear digital values when marking prints. Clarify ambiguities concerning the nature and application of change involved.

f. Wherever a revision is made, also make changes to related section views, details, legend, profiles, plans and elevation views, schedules, notes and call out designations, and mark accordingly to avoid conflicting data on all other sheets.

g. For deletions, cross out all features, data and captions that relate to that revision.

h. For changes on small-scale Drawings and in restricted areas, provide large-scale inserts, with leaders to the applicable location.

i. Indicate one of the following when attaching a print or sketch to a markup print:

1) An entire Drawing has been added to the Contract Drawings.

2) The Contract Drawing(s) has been updated to show the change.

3) Provided for reference only to further detail the initial design.

j. Incorporate all Shop and Fabrication Drawings into the markup Drawings.

3.1.2 As-Built Drawings Content

The As-Built Drawings shall show the following information, but not be limited thereto:

a. All of the information shown on the set of Drawings.

b. A record of all deviations, modifications or changes from those Drawings, however minor, which were incorporated in the Work.

c. All additional Work not appearing on the Contract Drawings.

d. The location and dimensions of any changes to the Site, within the building, or within the structure.

e. Changes in details of design or additional information obtained from submissions specified to be prepared and/or furnished by the Contractor; including but not limited to Shop Drawings, fabrication, erection, installation plans and placing details, pipe sizes, insulation material, dimensions of equipment foundations, etc.

f. The topography, invert elevations and grades of drainage installed or affected as part of the Project construction.

g. All changes, Revisions, and/or Modifications which result from the

final inspection.

h. Where Contract Drawings or Specifications present options, show only the option selected for construction on the working as-built markup Drawings.

i. If borrow material for this Project is from sources on Government property, or if Government property is used as a spoil area, furnish a contour map of the final borrow pit/spoil area elevations.

j. Systems designed or enhanced by the Contractor, such as HVAC controls, fire alarm, fire sprinkler, and irrigation systems.

3.2 RECORD DRAWINGS

The Contractor shall prepare final Record Drawings after the completion of Work as listed in the Contractor Quality Control Plan . Transfer the changes from the approved working As-Built Markup Drawings to the original electronic CAD Drawing files. Modify the As-Built CAD Drawing files to correctly show the features of the Project as-built by bringing the working CAD Drawing set into agreement with approved working As-Built Markup Drawings, and adding such additional Drawings as may be necessary.

Jointly review the working As-Built Markup Drawings with printouts from working As-Built CAD Drawing PDF files for accuracy and completeness. Monthly review of working As-Built CAD Drawing PDF file printouts must cover all sheets revised since the previous review. These PDF Drawing files are part of the permanent records of this Project. Any Drawings damaged or lost must be satisfactorily replaced at no expense to the Government.

3.2.1 Final Record Drawing Package

The Contractor shall provide 2 copies of complete final Record Drawings on 2 separate CDs or DVDs 30 days after date of final acceptance.

Each optical disc, read-only memory (ROM), shall include one set of ANSI D size PDF and CAD files of the final Record Drawings.

The package must be complete in all details and identical in form and function to the.

The Contracting Officer will review and either approve or provide comments regarding conformance to As-Built Conditions/Drawings. Contractor shall make all necessary revisions and resubmit to the Contracting Officer within 14 calendar days of issuance of commnets.

3.3 Final Approved Shop Drawings

Include copies of all final approved shop drawings in conjunction with the final record drawing package submittal. Provide 2 copies of complete final approved shop drawings on 2 separate CDs or DVDs 30 days after date of final acceptance. Organize final approved shop drawings in separate subfolders clearly labeled with the approved submittal number and title.

3.4 OPERATION AND MAINTENANCE MANUALS

Provide Project operation and maintenance manuals as specified in Section

01 78 23 OPERATION AND MAINTENANCE MANUALS DATA. Provide three electronic copies of the Operation and Maintenance Manual files. Submit to the Contracting Officer for approval within 60 calendar days of the Beneficial Occupancy Date (BOD). Update and resubmit files for final approval at BOD.

3.5 EQUIPMENT ENROLLMENT FORMS (EFF)

Contractor shall provide final Equipment Enrollment Forms in accordance with Section 01 78 23 OPERATION AND MAINTENANCE DATA as part of the Project close-out procedure.

3.6 CLEANUP

Provide final cleaning in accordance with ASTM E1971 and submit one copies of the listing of completed final clean-up items. Leave premises "broom clean." Use only nonhazardous cleaning materials, including natural cleaning materials, in the final cleanup. Clean interior and exterior glass surfaces exposed to view; remove temporary labels, stains and foreign substances. Clean equipment and fixtures to a sanitary condition. Clean filters of operating equipment. Clean debris from roofs, gutters, downspouts and drainage systems. Sweep paved areas and rake clean landscaped areas. Remove waste and surplus materials, rubbish and construction facilities from the Site. Dispose, recycle, salvage, and return construction and demolition waste from Project in accordance with Section 01 57 19 TEMPORARY ENVIRONMENTAL CONTROLS.

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SECTION 01 78 23

OPERATION AND MAINTENANCE DATA
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PART 1 GENERAL

1.1 WORK COVERED

This Section covers the Contractor's responsibility to prepare and provide Operations and Maintenance (O&M) documentation, equipment enrollment information, and comprehensive training on new utility and operational systems. The information and documentation provided under this Section will assist the U.S. Coast Guard with its Facilities Preventive Maintenance Program (FPMP). This Section also covers documentation requirements for equipment that is removed or demolished as part of the Work.

Provide equipment enrollment documentation, O&M Manuals, posted operating instructions, nameplates, valve tags, and training of U.S. Coast Guard personnel upon completion of each phase or stage of Projects that are constructed in phases or stages.

At a minimum, the requirements of this Section apply when the Work involves any of the following items:

a. HVAC systems

b. Electrical Systems

c. Fire alarm systems

d. Fire suppression systems

e. Water systems

f. Compressed air and piping systems

g. Steam systems

g. Carpet or flooring

h. Battery systems

i. Any machinery or equipment installed as part of this Contract

NOTE: Until such time of both Beneficial Occupancy Date and Government acceptance of all equipment enrollment documentation, training, and approved O&M manuals, the Contractor shall provide all required maintenance on equipment, systems, components and machinery provided under this Contract at no additional cost to the Government.

1.2 REFERENCES

The publications listed below form a part of this Specification Section to the extent referenced. The publications are referred to within the text

by the basic designation only.

ASTM INTERNATIONAL (ASTM)

ASTM E1557	(2009; R 2015) Standard Classification for Building Elements and Related Sitework - UNIFORMAT II
ASTM E1971	(2005; R 2011) Standard Guide for Stewardship for the Cleaning of Commercial and Institutional Buildings

RSMeans (RSM)

RSM FMRCD	(2019) Facilities Maintenance & Repair Costs with RSMeans Data

1.3 SUBMITTALS

Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-10 Operation and Maintenance Data

Draft O&M Manual

Corrected O&M Manual

Final O&M Manual

Training Plan

Training Outline

Training Content

Equipment Enrollment Form

SD-11 Closeout Submittals

Training Video Recording

Validation of Training Completion

1.3.1 Submittal Transmittals

In accordance with Section 01 33 00 SUBMITTAL PROCEDURES, all submittals require a submittal transmittal form and all submittal transmittal forms must be signed by an authorized official of the Contractor, indicating that the Contractor has reviewed the submittal for conformance with all requirements of the Contract documents, in order to be accepted.

1.4 OPERATION AND MAINTENANCE DATA

Submit Operation and Maintenance (O&M) Data for the provided equipment, product, or system, defining the importance of system interactions, troubleshooting, and long-term preventive operation and maintenance. Compile, prepare, and aggregate O&M data to include clarifying and updating the original sequences of operation to as-built conditions.

Organize and present information in sufficient detail to clearly explain O&M requirements at the system, equipment, component, and subassembly level. Include an index preceding each submittal. Submit in accordance with this Section and Section 01 33 00 SUBMITTAL PROCEDURES.

1.4.1 Package Quality

Documents must be fully legible. Operation and Maintenance data must be consistent with the manufacturer's standard brochures, schematics, printed instructions, general operating procedures, and safety precautions.

Equipment model provided shall be indicated on all schedules, charts and lists along with accessories provided. Inapplicable information on accessories not provided or unrelated manufacturer's equipment shall be removed or crossed out if on the same page as applicable information. All non-English language sections shall be removed unless on the same page as English sections. All references to individual equipment shall reference it's tag number as identified in the Drawings and on the associated Equipment Enrollment Form. Correlate identification of equipment with nomenclature used on plans, e.g., FCU-1 (fan coil unit-1), etc.

1.4.2 Package Content

Provide data package content in accordance with paragraph SCHEDULE OF OPERATION AND MAINTENANCE DATA PACKAGES. Comply with the data package requirements specified in the individual Technical Sections, including the content of the packages and addressing each product, component, and system designated for data package submission. Use Data Package 5 for commissioned items without a specified data package requirement in the individual Technical Sections.

1.4.3 Changes to Submittals

Provide manufacturer-originated changes or revisions to submitted data if a component of an item is so affected subsequent to acceptance of the O&M Data. Submit changes, additions, or revisions required by the Contracting Officer for final acceptance of submitted data within 30 calendar days of the notification of this change requirement.

1.5 TYPES OF INFORMATION REQUIRED IN O&M DATA PACKAGES

The following are detailed descriptions of the data package items listed in paragraph SCHEDULE OF OPERATION AND MAINTENANCE DATA PACKAGES.

1.5.1 Operating Instructions

Make reference to nameplate data, manufacturers' literature, schematics, Drawings, and other parts of the manual to help personnel understand the procedures. Provide specific instructions, procedures, and illustrations for all phases of operation for the installed model and features of each system.

1.5.1.1 Narrative

Describe the function of each system or piece of equipment. Provide the manufacturer's printed description. Include equipment model number, characteristics (e.g., BTU, GPM, head, horsepower, voltage, etc.), and equipment nameplate symbol.

1.5.1.2 Safety Precautions and Hazards

List personnel hazards and equipment or product safety precautions for operating conditions. Provide recommended safeguards for each identified hazard.

1.5.1.3 Operator Prestart

Provide procedures required to install, set up, and prepare each system for use.

1.5.1.4 Startup, Shutdown, and Post-Shutdown Procedures

Provide narrative description for Startup, Shutdown and Post-shutdown operating procedures including the control sequence for each procedure.

1.5.1.5 Normal Operations

Provide Control Diagrams with data to explain operation and control of systems and specific equipment. Provide narrative description of Normal Operating Procedures.

1.5.1.6 Emergency Operations

Provide Emergency Procedures for equipment malfunctions to permit a short period of continued operation or to shut down the equipment to prevent further damage to systems and equipment. Provide Emergency Shutdown Instructions for fire, explosion, spills, or other foreseeable contingencies. Provide guidance and procedures for emergency operation of utility systems including required valve positions, valve locations and zones or portions of systems controlled.

1.5.1.7 Operator Service Requirements

Provide instructions for services to be performed by the operator such as lubrication, adjustment, inspection, and recording gauge readings.

1.5.1.8 Environmental Conditions

Provide a list of Environmental Conditions (temperature, humidity, and other relevant data) that are best suited for the operation of each product, component or system. Describe conditions under which the item and/or equipment should not be allowed to run.

1.5.1.9 Operating Log

If required by code, regulations, Contract Documents, or Contracting Officer, provide forms, sample logs, and instructions for maintaining necessary operating records.

1.5.2 Preventive Maintenance

For each piece of equipment including batteries, describe routine maintenance to be performed and the maintenance interval in daily or weekly time frames to the maximum extent possible. Some equipment (e.g., generators) will require the maintenance interval to be provided in service hours (e.g., 1,000 hours), but this should be avoided unless required otherwise by code, regulations, Contract Documents, or Contracting Officer (e.g., generators). Develop a maintenance schedule

reflecting these intervals based on manufacturer's written data. In a separate subsection, provide overhaul instructions for equipment that can be overhauled. Provide manufacturers' detailed instructions if available.

Provide the following information for preventive and scheduled maintenance to minimize repairs for the installed model and features of each system. Include potential environmental and indoor air quality impacts of recommended maintenance procedures and materials.

1.5.2.1 Preventive Maintenance Plan, Schedule, and Procedures

Provide manufacturer's schedule for routine preventive maintenance, inspections, condition monitoring (predictive tests), and adjustments required to ensure proper and economical operation and to minimize repairs. Provide instructions stating when the systems should be retested. Include manufacturer's projection of preventive maintenance work-hours on a daily, weekly, monthly, and annual basis including craft requirements by type of craft. For periodic calibrations, provide manufacturer's specified frequency and procedures for each separate operation.

Define the anticipated time required to perform each test (work-hours), necessary test apparatus, number of personnel identified by responsibility, and a testing validation procedure permitting the record operation capability requirements within the schedule. Provide a remarks column for the testing validation procedure referencing operating limits of time, pressure, temperature, volume, voltage, current, acceleration, velocity, alignment, calibration, adjustments, cleaning, or special system notes. Delineate procedures for preventive maintenance, inspection, adjustment, lubrication and cleaning necessary to minimize repairs.

1.5.2.2 Lubrication Data

Include the following preventive maintenance lubrication data, in addition to instructions for lubrication required under paragraph OPERATOR SERVICE REQUIREMENTS:

a. A table showing recommended lubricants for specific temperature ranges and applications.

b. Charts with a schematic diagram of the equipment showing lubrication points, recommended types and grades of lubricants, and capacities.

1.5.2.3 Testing and Performance Data

Include completed prefunctional checklists, functional performance test forms, and monitoring reports. Include recommended schedule for retesting and blank test forms. Provide final set points.

1.5.2.4 Cleaning Recommendations

Provide environmentally preferable cleaning recommendations in accordance with ASTM E1971.

1.5.3 Repair

Provide manufacturer's recommended procedures and instructions for correcting problems and making repairs for the installed model and features of each system. Include potential environmental and indoor air

quality impacts of recommended maintenance procedures and materials.

1.5.3.1 Troubleshooting Guides and Diagnostic Techniques

Provide step-by-step procedures to promptly isolate the cause of typical malfunctions. Describe clearly why the checkout is performed and what conditions are to be sought. Identify tests or inspections and test equipment required to determine whether parts and equipment may be reused or require replacement.

1.5.3.2 Drawings, Diagrams, and Charts

Provide point-to-point Drawings of wiring and control circuits including factory-field interfaces. Provide a complete and accurate depiction of the actual job specific wiring and control Work. On diagrams, number electrical and electronic wiring and pneumatic control tubing and the terminals for each type, identically to actual installation configuration and numbering.

1.5.3.2.1 Mechanical

Provide piping and duct diagrams and schematics for HVAC, plumbing, fuel, and compressed air systems showing all equipment, valves and controls. Identify equipment by nameplate symbol. Identify valves by valve tag number with normal or seasonal operating positions indicated. Provide half-size scaled Drawings of complete systems with each individual system highlighted in contrasting colors with system color identification chart.

Provide wiring diagrams of HVAC systems electrical power and temperature controls. Ensure operation of the temperature controls is identified in the operating instructions.

1.5.3.2.2 Electrical

Provide wiring diagrams and schematics of all electrical systems, emergency generator and transfer switch systems, fire detection and alarm systems, intrusion detection and alarm systems, public address systems, telephone systems, cable TV systems, computer systems and major pieces of equipment.

1.5.3.3 Repair Procedures

Provide instructions and a list of tools required to repair or restore the product or equipment to proper condition or operating standards.

Repair procedures must inform operators how to check out, troubleshoot, repair, and replace components of the system. Include electrical and mechanical schematics and diagrams and diagnostic techniques necessary to enable operation and troubleshooting of the system after acceptance.

1.5.3.4 Removal and Replacement Instructions

Provide step-by-step procedures and a list of required tools and supplies for removal, replacement, disassembly, and assembly of components, assemblies, subassemblies, accessories, and attachments. Provide tolerances, dimensions, settings and adjustments required. Use a combination of text and illustrations.

1.5.3.5 Spare Parts and Supply Lists

Provide lists of spare parts and supplies, including part numbers and sources of supply, required for repair to ensure continued service or operation without unreasonable delays. Special consideration is required for facilities at remote locations. List spare parts and supplies that have a long lead-time to obtain.

For all pieces of equipment provide a complete list of manufacturer's recommended spare parts as well as special tools or instruments needed to perform routine maintenance. Special tools required shall be provided with the equipment at time of installation.

1.5.3.6 Repair Work-Hours

Provide manufacturer's projection of repair work-hours including requirements by type of craft. Identify, and tabulate separately, repair that requires the equipment manufacturer to complete or to participate.

1.5.4 Appendices

Provide information required below and information not specified in the preceding paragraphs but pertinent to the maintenance or operation of the product or equipment. Include the following:

1.5.4.1 Product Submittal Data

Provide a copy of SD-03 Product Data submittals documented with the required approval.

1.5.4.2 Manufacturer's Instructions

Provide a copy of SD-08 Manufacturer's Instructions submittals documented with the required approval.

1.5.4.3 O&M Submittal Data

Provide a copy of SD-10 Operation and Maintenance Data submittals documented with the required approval.

1.5.4.4 Battery Data

Provide charging instructions and maintenance information (e.g., with normal and abnormal reading) of:

a. Voltages

b. Currents (charging and float)

c. Specific gravity

1.5.4.5 Parts Identification

Provide identification and coverage for the parts of each component, assembly, subassembly, and accessory of the end items subject to replacement. Include special hardware requirements, such as requirement to use high-strength bolts and nuts. Identify parts by make, model, serial number, and source of supply to allow reordering without further identification. Provide clear and legible illustrations, Drawings, and

exploded views to enable easy identification of the items. When illustrations omit the part numbers and description, both the illustrations and separate listing must show the index, reference, or key number that will cross-reference the illustrated part to the listed part. Group the parts shown in the listings by components, assemblies, and subassemblies in accordance with the manufacturer's standard practice. Parts data may cover more than one model or series of equipment, components, assemblies, subassemblies, attachments, or accessories, such as typically shown in a master parts catalog.

1.5.4.6 Warranty Information

List and explain the various warranties and clearly identify the servicing and technical precautions prescribed by the manufacturers' or Contract Documents in order to keep warranties in force. Include warranty information for primary componentsof the system. Provide copies of warranties required by Section 01 78 00 CLOSEOUT SUBMITTALS.

Consolidate manufacturer's warranty data for all applicable equipment or components into a reference table. The reference table should be inserted as a separate section in the front of the O&M manual deliverable, or provided as an appendix to the O&M deliverable. This reference table should be organized and sorted by Uniformat II Level 2 systems and should include the following fields for each component or piece of equipment:

a. Equipment/Component Description

b. Building Name

c. Location Number

d. Quantity or Size + UOM (Unit of Measure)

e. Installation Date

f. Manufacturer

g. Model Number

h. Serial Number

i. Manufacturer Warranty end date

j. Equipment Tag Number

1.5.4.7 Extended Warranty Information

In addition to the above requirements for warranty data, list all warranties for products, equipment, components, and sub-components whose duration exceeds one year. For each warranty listed, indicate the applicable Specification Section, duration, start date, end date, and the point of contact for warranty fulfillment. Also, list or reference the specific operation and maintenance procedures that must be performed to keep the warranty valid. Provide copies of warranties required by Section 01 78 00 CLOSEOUT SUBMITTALS.

1.5.4.8 Personnel Training Requirements

Provide information available from the manufacturers that is needed for

use in training designated personnel to properly operate and maintain the equipment and systems.

1.5.4.9 Testing Equipment and Special Tool Information

Include information on test equipment required to perform specified tests and on special tools needed for the operation, maintenance, and repair of components. Provide final set points.

1.5.4.10 Field Test Reports

Provide a copy of Field Test Reports (SD-06) submittals documented with the required approval.

1.5.4.11 Contractor Information

Provide a list that includes the name, address, and telephone number of the General Contractor and each subcontractor who installed the product or equipment, or system. For each item, also provide the name address and telephone number of the manufacturers' representative and service organization that can provide replacements most convenient to the Project Site. Provide the name, address, and telephone number of the product, equipment, and system manufacturers.

1.6 SCHEDULE OF OPERATION AND MAINTENANCE DATA PACKAGES

Provide the O&M Data Packages specified in individual Technical Sections. A table illustrating the types of data required for each Data Package number is provided as "Appendix 18 - O&M Data Package Table," to these Specifications. The information required in each type of data package follows:

1.6.1 Data Package 5

a. Narrative

b. Safety precautions and hazards

c. Operator prestart

d. Start-up, shutdown, and post-shutdown procedures

e. Normal operations

f. Environmental conditions

g. Preventive maintenance plan, schedule, and procedures

h. Troubleshooting guides and diagnostic techniques

i. Drawings, diagrams, and charts including all wiring diagrams and control diagrams

j. Repair procedures

k. Removal and replacement instructions

l. Spare parts and supply list

m. Product submittal data

n. Manufacturer's instructions

o. O&M submittal data

p. Parts identification

q. Testing equipment and special tool information

r. Warranty information

s. Extended warranty information

t. Testing and performance data

u. Contractor information

v. Field test reports

w. Additional requirements for HVAC control systems (where required)

x. Emergency operations (where applicable)

y. Battery Data

1.7 OPERATION AND MAINTENANCE MANUALS

Assemble data packages into electronic and hard copy Operation and Maintenance Manuals.

The manual shall be a one-point reference source for U.S. Coast Guard personnel and maintenance Contractors to operate and maintain the systems and equipment listed in the Specification Sections. Prepared text and instructions shall be written in modern English and prepared at the appropriate grade level reading ease for the intended O&M audience. Compile the manual using the equipment manufacturers' data along with supplemental instructions and Drawings prepared by or on behalf of the Contractor. Supplemental instructions shall include a complete description of the system operation along with step-by-step procedures for start-up, shut down, seasonal changes, and dealing with emergency situations. Include tables indicating any set points and Drawings indicating location of equipment, valves, etc. as described below.

1.7.1 Draft O&M Manual

Submit draft electronic copies of the O&M Manual 14 days prior to any testing or inspection as follows:

a. Submit one copy for review by the Contracting Officer.

b. Submit one copy for review by the and correction by the Contractor.

During equipment start-up/testing, compare actual operating procedures to those stated in the manual; revise manual as needed.

1.7.2 Corrected O&M Manual

Submit corrected electronic copies of the O&M Manual at time of final

inspection as follows:

a. Submit one copy to the Contracting Officer for information only.

b. Submit two copies for verifcation by the .

Comments and one copy of the manual will be returned by the to the Contractor for final correction.

1.7.3 Final O&M Manual

Submit final electronic and hard copies of the O&M Manual 7 days after receipt of Corrected O&M Manual review comments as follows:

a. Submit one copy to the Contracting Officer for information only.

b. Submit two copies for verifcation by the .

The will either approve the Final O&M Manuals or provide comments and return one copy of the manual to the Contractor for additional corrections. In addition, copies of the Final O&M Manuals shall be available during training. If corrections are necessary, repeat the Final O&M submittal process as outlined above. After final approval, the Contractor shall provide one electronic and two hard copies of the approved, Final O&M Manuals.

1.7.4 Organization

1.7.4.1 Hard Copies

Arrange the manual so there is a separate chapter for each Uniformat II level. Then subdivide each chapter into sections that provide the required information for each system or piece of equipment.

Manuals shall be in vinyl-covered three ring binders sized for 8.5 inches by 11 inches pages. Provide a title page and table of contents. For each chapter provide hard paper tab dividers with chapter title or equipment name printed on the faces and tabs. Drawings included in the manual shall be trifolded 11 inches by 17 inches pages. On the spine and front cover of the manual, print, in lines that are horizontal when the manual is upright on a shelf:

Operation and Maintenance Manual
Building Name
Title of Project
Revision and Date

1.7.4.2 Electronic Copies

Assemble each manual into a composite electronically indexed file using the most current version of Adobe Acrobat or similar software capable of producing PDF file format. Provide compact disks (CD) or data digital versatile disk (DVD) as appropriate, so that each one contains operation, maintenance and record files, Project record documents, and training videos as required. Include a complete electronically linked operation and maintenance directory.

PDF files, including cut sheets and Drawings, shall provide fully searchable text. Include a separate disk, organized in the same structure

as the primary O&M disk, with (wherever possible) the native file formats (.doc, .dwg, etc.) used to prepare the PDF's included in the O&M Manual. Preventive Maintenance and other Tables shall be prepared using a standard format such as Microsoft Word or Excel, and shall not be scanned from manufacturer data.

Bookmark Product and Drawing Information documents using Uniformat II levels, and arrange submittals using the Project Specification Section numbers as a structure. Use Uniformat II numbers along with descriptive bookmarked titles that explain the content of the information that is being bookmarked.

1.8 CONTROL SOFTWARE

Provide a copy of all programmable inputs on a CD in a protective case. Include CD with final set points of all control software and the control software in each copy of the O&M manual and also attach a copy of the software to the piece of equipment the program is installed on. At a minimum provide programming copies (backup) for Fire alarm/control, HVAC, security, and access control systems provided under this Contract. After the Project is determined to be substantially complete, the Contractor shall ensure that the U.S. Coast Guard will have the software administrative rights to make any necessary operational adjustments on all access control systems (e.g., HVAC DDC (Direct Digital Controls), Fire alarm, security, etc).

Provide the following information on the disk label and disk holder or case:

a. Building Number

b. Project Title

c. Activity and Location

d. Construction Contract Number

e. Prepared For: (Contracting Agency)

f. Prepared By: (Name, title, phone number and email address)

g. Include the disk content on the disk label

h. Date

i. Virus scanning program used

1.9 EQUIPMENT ENROLLMENT

The Contractor shall record enrollment-eligible equipment and/or systems that are inststalled or decommissioned as part of the Work. Record this information on a Government-provided Excel Spreadsheet. The Government will take the Contractor supplied information and input it into the U.S. Coast Guard Shore Asset Management (SAM) system.

1.9.1 Equipment Enrollment Catalog

The U.S. Coast Guard Approved Equipment Enrollment Catalog is provided as "Appendix 19 - U.S. Coast Guard Equipment Enrollment Catalog," to these

Specifications. This catalog is the most current list of equipment and systems with maintenance requirements that are electronically tracked in the SAM database. The catalog serves the following purposes:

a. Catagorizes the equipment that the U.S. Coast Guard maintains in accordance with the building element clasifications outlined in ASTM E1557 at the level UNIFORMAT II, Level 4 format.

b. Assigns Preventive Maintenance Procedures to the equipment per the RSM FMRCD (RSMeans "Facilities Maintenance And Repair Cost Data") publication.

c. Assigns the SAM "Job Plan" to the respective RSMeans Preventive Maintenance Procedure in a one-to-one database context.

1.9.2 Equipment Enrollment Form

For each contractual piece of equipment provided, installed, or decomissioned, the Contractor shall reference the Equipment Enrollment Catalog in order to fill out the Equipment Enrollment Form. The Equipment Enrollment Form Excel spreadsheet will be provided by the Contracting Officer. A sample form is provided as "Appendix 20 - Example Enrollment Form" to these Specifications for reference.

Only equipment from a single SAM building number is allowed on each individual Equipment Enrollment Form. Contractor shall request a listing of Project related SAM building numbers. Allow the U.S. Coast Guard 14 days to provide a listing of all SAM building numbers.

1.9.3 Format

Submit one electronic copy of the Excel file for each building. Note that U.S. Coast Guard will complete data entry into SAM utilizing Contractor's electronic Excel file.

PART 2 PRODUCTS

2.1 NAMEPLATES

Unless otherwise specified in the Specifications, provide minimum 3/4 inch by 2-1/2 inch by 1/8 inch thick black laminated plastic nameplates with 3/8 inch high white block lettering for the equipment and systems specified in other Sections. Nameplates shall be lettered with the following:

a. Item ID name or symbol shown on Drawings

b. Capacity or size if not on manufacturer's nameplate

c. For monitoring and measuring equipment such as meters, gages, and thermometers, nameplate shall also identify what is being measured.

For example, the nameplate for thermometer No. 1 in a hot water supply line shall indicate "Thermometer No. 1 - HWS" or similar wording.

Contractor shall provide a Draft of all nameplates text for U.S. Coast Guard approval prior to final ordering of nameplates.

PART 3 EXECUTION

3.1 TRAINING

Prior to acceptance of the facility by the Contracting Officer for Beneficial Occupancy, provide comprehensive training for the systems and equipment specified in the technical Specifications. The Contractor shall provide training to U.S. Coast Guard personnel on how to operate and maintain each piece of equipment or system installed in this Project. The training must be targeted for the building maintenance personnel, and applicable building occupants and facility partner(s).

Equipment and systems training shall include the following at a minimum, as applicable:

a. Fire alarm and suppression systems

e. Electrical systems

Training shall be conducted at the Project Site. Only one system shall have instruction at a time. At a minimum assume 2 hours of training for For the following systems: fire alarm system, tank alarm and monitoring system, leak detection system, and fueling control system If the system is more complicated provide additional training as required to meet the intended purpose to train U.S. Coast Guard personnel. The instruction sessions shall be recorded on DVD and two copies shall be provided to the Contracting Officer.

Provide final approved applicable O&M manuals to attendees for training for each item (minimum 4 copies per training session).

3.1.1 Training Plan

Submit a written training plan to the Contracting Officer for approval at least 14 calendar days prior to the scheduled training. Training shall be coordinated to occur as part of the last day or two of the U.S. Coast Guard final inspection and prior to building acceptance. Training plan must be approved by the Quality Control Manager (QC) prior to forwarding to the Contracting Officer. Also, coordinate the training schedule with the Contracting Officer and Quality Control Manager. Include within the plan the following elements:

a. Equipment included in training

b. Intended audience

c. Location of training

d. Dates of training

e. Objectives

f. Outline of the information to be presented and subjects covered including description

g. Start and finish times and duration of training on each subject

h. Methods (e.g., classroom lecture, video, Site walk-through, actual

operational demonstrations, written handouts)

i. Instructor names and instructor qualifications for each subject

j. List of texts and other materials to be furnished by the Contractor that are required to support training

k. Description of proposed software to be used for video recording of training sessions.

3.1.2 Training Content

Address aspects of the Operation and Maintenance Manual submitted in accordance with Section 01 78 00 CLOSEOUT SUBMITTALS. Instructions/training shall be for the applicable duration and shall focus on the operation, troubleshooting, maintenance, and adjustment of the systems and equipment specified in the Contract Drawings and Specifications.

The core of this training must be based on manufacturer's recommendations and the operation and maintenance information. The QC is responsible for overseeing and approving the content and adequacy of the training. Spend 95 percent of the instruction time during the presentation on the OPERATION AND MAINTENANCE DATA. Include the following for each system training presentation:

a. Operator prestart

b. Startup, shutdown, and post-shutdown procedures

c. Normal operations

d. Emergency operations

e. Unoccupied operation, seasonal changeover, manual operation, controls set-up and programming

f. Relevant health and safety issues and precautions

g. Operator service requirements

h. Review of wiring and control Drawings and schematics

i. Troubleshooting, troubleshooting guides, diagnostic techniques, and alarms

j. Parts identification

k. Spare parts and supply list

l. Special maintenance and replacement sources

m. Lubrication data

n. Preventive maintenance plan and schedule

o. Maintenance and repair procedures

p. Corrective maintenance man-hours

q. Testing equipment & special tool information

r. Environmental conditions including a discussion of how the feature or system is environmentally responsive. Advise adjustments and optimizing methods for energy conservation.

s. Design intent.

t. Use of O&M Manual Files.

u. Interactions with other systems.

v. Tenant interaction issues.

w. Removal and replacement instructions

x. Warranty certificate and information

y. Personnel training requirements

3.1.3 Training Outline

Provide the Operation and Maintenance Manual Files (Bookmarked PDF) and a written course outline listing the major and minor topics to be discussed by the instructor on each day of the course to each trainee in the course. Provide the course outline 14 calendar days prior to the training.

3.1.4 Training Video Recording

Record classroom training session(s) on video. Provide to the Contracting Officer two copies of the training session(s) in DVD video recording format. All training videos shall be in a preapproved media player file format. Capture within the recording, in video and audio, the instructors' training presentations including question and answer periods with the attendees. The recording camera(s) must be attended by a person during the recording sessions to assure proper size of exhibits and projections during the recording are visible and readable when viewed as training.

3.1.5 Unresolved Questions from Attendees

If, at the end of the training course, there are questions from attendees that remain unresolved, the instructor must send the answers, in writing, to the Contracting Officer for transmittal to the attendees, and the training video must be modified to include the appropriate clarifications.

3.1.6 Validation of Training Completion

Ensure that each attendee at each training session signs a class roster daily to confirm Government participation in the training. At the completion of training, submit a signed validation letter that includes a sample record of training for reporting what systems were included in the training, who provided the training, when and where the training was performed, and copies of the signed class rosters. Provide two copies of the validation to the Contracting Officer, and one copy to the Operation and Maintenance Manual Preparer for inclusion into the Manual's documentation.

3.1.7 Quality Control Coordination

Coordinate this training with the QC in accordance with Section 01 45 00 QUALITY CONTROL.

-- End of Section --

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PART 1 GENERAL

1.1 REFERENCES

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

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO)

AASHTO T 180	(2017) Standard Method of Test for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop

ASTM INTERNATIONAL (ASTM)

ASTM C136/C136M	(2019) Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates
ASTM C702/C702M	(2018) Standard Practice for Reducing Samples of Aggregate to Testing Size
ASTM D75/D75M	(2019) Standard Practice for Sampling Aggregates
ASTM D1140	(2017) Standard Test Methods for Determining the Amount of Material Finer than 75-µm (No. 200) Sieve in Soils by Washing
ASTM D1557	(2012; E 2015) Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft3) (2700 kN-m/m3)
ASTM D2487	(2017; E 2020) Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)
ASTM D4318	(2017; E 2018) Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
ASTM D4718/D4718M	(2015) Standard Practice for Correction of Unit Weight and Water Content for Soils Containing Oversize Particles

CITY OF KODIAK (KODIAK)

KODIAK SCSSD	City of Kodiak Standard Construction Specifications & Standard Details - 2012 Edition

U.S. COAST GUARD BASE KODIAK (BASE KODIAK)

BASE KODIAK SCS	U.S. Coast Guard Base Kodiak Standard Construction Specifications, Latest Edition

1.2 DEFINITIONS

1.2.1 City Ordinances

The following Base Kodiak and city ordinance criteria must be included in the Specification as applicable for the location and conditions of Work being performed.

AKDOT STIP

BASE KODIAK SCS
KODIAK SCSSD

1.2.2 Satisfactory Materials

Satisfactory materials shall consist of earth, sand, gravel, rock, or combinations thereof, and shall contain no muck, peat, roots, wood, scrap material, vegetation, refuse, soft unsound particles, frozen material or other deleterious, and objectionable matter; and shall be compactable and meet the aggregate gradation requirements of the Drawings and Specifications.

1.2.3 Unsatisfactory Materials

Materials which do not comply with the requirements for satisfactory materials are unsatisfactory. Unsatisfactory materials also include man-made fills; trash; refuse; backfills from previous construction; material classified as satisfactory which contains root and other organic matter or frozen material, and contaminated soil materials. Notify the Contracting Officer when encountering any contaminated materials.

1.2.4 Cohesionless and Cohesive Materials

Cohesionless materials include materials classified in ASTM D2487 as GW, GP, SW, and SP. Cohesive materials include materials classified as GC, SC, ML, CL, MH, and CH. Materials classified as GM and SM will be identified as cohesionless only when the fines are nonplastic. Perform testing, required for classifying materials, in accordance with ASTM D4318, ASTM C136/C136M and ASTM D1140.

1.2.5 Degree of Compaction

Degree of compaction required, except as noted in the second sentence, is expressed as a percentage of the maximum density obtained by the test procedure presented in ASTM D1557 abbreviated as a percent of laboratory maximum density. Since ASTM D1557 applies only to soils that have 30 percent or less by weight of their particles retained on the 3/4 inch sieve, express the degree of compaction for material having more than 30

percent by weight of their particles retained on the 3/4 inch sieve as a percentage of the maximum density in accordance with AASHTO T 180 and corrected with ASTM D4718/D4718M. To maintain the same percentage of coarse material, use the "remove and replace" procedure as described in NOTE 8 of Paragraph 7.2 in AASHTO T 180.

1.2.6 Hard/Unyielding Materials

Hard/Unyielding materials comprise weathered rock, dense consolidated deposits, or conglomerate materials which are not included in the definition of "rock" with stones greater than 3 inch in any dimension or as defined by the pipe manufacturer, whichever is smaller. These materials usually require the use of heavy excavation equipment, ripper teeth, or jack hammers for removal.

1.2.7 Rock

Solid homogeneous interlocking crystalline material with firmly cemented, laminated, or foliated masses or conglomerate deposits, neither of which can be removed without systematic drilling and blasting, drilling and the use of expansion jacks or feather wedges, or the use of backhoe-mounted pneumatic hole punchers or rock breakers; also large boulders, buried masonry, or concrete other than pavement exceeding 1/2 cubic yard in volume. Removal of hard material will not be considered rock excavation because of intermittent drilling that is performed merely to increase production.

1.2.8 Unstable Material

Unstable materials are materials that have properties such that the contractor is unable to achieve the required degree of compaction or are too wet to properly support utility pipes, conduits, or appurtenant structures and foundations or subsequent overlying earthwork.

1.2.9 Initial Backfill Material

Initial backfill and bedding consists of Selected Material Type A. or material as recommended by the pipe manufacturer, whichever is smaller. Remove from the initial backfill and bedding material stones larger than recommended by the pipe manufacturer. Initial backfill and bedding material shall be non-frost-susceptible.

1.2.10 Nonfrost Susceptible (NFS) Material

Nonfrost susceptible material is inorganic soil with less than 6 percent passing the No. 200 size sieve, and with not more than 3 percent by weight finer than 0.02 mm grain size.

1.2.11 Controlled Low Strength Material (CLSM)

Controlled Low Strength Material, or cement densified soil, is self compacting, cementitious material, as described in ACI 229R, Report of Controlled Low-Strength Materials, used as backfill in place of compacted fill. Locations for CLSM are not typically specified on the drawings. CLSM is proposed as a substitute for other material in circumstances where compaction is difficult due to Site conditions. CLSM is not suitable in locations where drainage is required, or where soil foundation stresses are high.

1.3 SUBMITTALS

Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-03 Product Data

D-1 Aggregate Base Course

1.3.1 Submittal Transmittals

In accordance with Section 01 33 00 SUBMITTAL PROCEDURES, all submittals require a submittal transmittal form and all submittal transmittal forms must be signed by an authorized official of the Contractor, indicating that the Contractor has reviewed the submittal for conformance with all requirements of the Contract documents, in order to be accepted.

1.4 QUALITY CONTROL

Quality Control testing required by these Specifications shall be performed on representative samples of materials delivered to the Project Site. Unless authorized by the Contracting Officer in writing, results of tests performed for other Projects or on materials collected from off-site stockpiles will not be acceptable.

Quality Control test results shall include certification that sampling and testing was performed in accordance with the specified standards.

Until required Quality Control test results are submitted and approved, covering, obscuring, or otherwise making the Work represented by the testing inaccessible will be at the Contractor's risk. If Quality Control testing indicates nonconformance with these Specifications, the Contractor shall remove and replace portions of the Work as directed by the Contracting Officer.

The Contracting Officer has authority to accept or reject materials.

Laboratory and field testing shall be performed by personnel with current corresponding Western Alliance for Quality Transportation Construction (WAQTC) certification(s).

Collect and reduce size of soil and aggregate Quality Control testing samples in accordance with ASTM D75/D75M and ASTM C702/C702M. Quality Control test results may be rejected if Contractor cannot provide proper documentation of sampling procedures.

1.5 DELIVERY, STORAGE AND HANDLING

Unless directed otherwise, material's Specifications shall be measured in their final position and conditions in the Work. Storage and handling of materials shall be the sole responsibility of the Contractor, and payment for materials not meeting the Specifications will under no circumstances be made regardless of the causes, be they related to delivery, storage, handling, or otherwise.

PART 2 PRODUCTS

2.1 MATERIAL FOR RIP-RAP

Material for rip rap shall be hard angular quarry stone with two or more mechanically fractured faces. The least dimension of any piece shall not be less than 1/4 its greatest dimension, or 6 inches. Do not permit the inclusion of more than trace 1 percent quantities of dirt, sand, clay, and rock fines. Rip rap shall meet the following gradation requirements:

ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES (ADOT&PF) CLASS I	
% LIGHTER	WEIGHT
0 - 50%	Up to 25 lbs
0 - 10%	More than 50 lbs

ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES (ADOT&PF) CLASS II	
% LIGHTER	WEIGHT
0 - 10%	More than 400 lbs
50 - 100%	200 lbs or More
0 - 15%	Up to 25 lbs

2.1.1 D-1 Base Course

D-1 Aggregate Base Course and Surface Course materials shall be manufactured from rock, talus, or gravel. The materials shall be uniform in quality and substantially free from wood, roots, bark, and other deleterious material and shall meet the following quality test requirements, and gradation requirements as placed in the Work:

PROPERTY	D-1 BASE COURSE
L.A. Abrasion % (500 rev.)	50 max
Degradation	45 min
Sodium Sulfate Loss % (5 Cycles)	9 max
Percent Fracture	70 min
Liquid Limit	N/A
Plastic Index	6 max

Sieve Size	Percent Passing by Weight
	D-1 Base Course
1"	100
3/4"	70 - 100
3/8"	50 - 80
U.S. No. 4	35 - 65
U.S. No. 8	20 - 50
U.S. No. 50	6 - 30
U.S. No. 200	6 max

PART 3 EXECUTION

3.1 FILLING, BACKFILLING AND COMPACTION

Place fill and backfill beneath and adjacent to any and all type of structures, in successive horizontal layers of loose material not more than 8 inches in depth, or in loose layers not more than 5 inches in depth when using hand-operated compaction equipment. Compact to at least 90 percent of laboratory maximum density for cohesive materials or 95 percent of laboratory maximum density for cohesionless materials, except as otherwise specified. Perform compaction in such a manner as to prevent wedging action or eccentric loading upon or against the structure. Moisture condition fill and backfill material to within range of +2 or -2 percent of optimum moisture content at the time of compaction.

Prepare ground surface on which backfill is to be placed and provide compaction requirements for backfill materials in conformance with the applicable portions of paragraphs GROUND SURFACE PREPARATION. Finish compaction by sheepsfoot rollers, pneumatic-tired rollers, steel-wheeled rollers, vibratory compactors, or other approved equipment.

3.2 FINISHING

Finish the surface of excavations, embankments, and subgrades to a smooth and compact surface in accordance with the lines, grades, and cross sections or elevations shown. Provide the degree of finish for graded areas within 0.1 foot of the grades and elevations indicated except that the degree of finish for subgrades specified in paragraph SUBGRADE PREPARATION. Finish gutters and ditches in a manner that will result in effective drainage. Finish the surface of areas to be turfed to a smoothness suitable for the application of turfing materials. Repair graded, topsoiled, or backfilled areas prior to acceptance of the Work, and re-established grades to the required elevations and slopes.

3.2.1 Subgrade and Embankments

During construction, keep embankments and excavations shaped and drained. Maintain ditches and drains along subgrade to drain effectively at all times. Do not disturb the finished subgrade by traffic or other operation. Protect and maintain the finished subgrade in a satisfactory condition until ballast, subbase, base, or pavement is placed. Do not permit the storage or stockpiling of materials on the finished subgrade. Do not lay subbase, base course, ballast, or pavement until the subgrade has been checked and approved, and in no case place subbase, base, surfacing, pavement, or ballast on a muddy, spongy, or frozen subgrade.

3.2.2 Grading Around Structures

Construct areas within 5 feet outside of each building and structure line true-to-grade, shape to drain, and maintain free of trash and debris until final inspection has been completed and the Work has been accepted.

3.3 DISPOSITION OF SURPLUS MATERIAL

Surplus material, contaminated environmental media, and excavated unsatisfactory material not required or suitable for filling or backfilling in accordance with Section 01 57 19 TEMPORARY ENVIRONMENTAL CONTROLS,including but not limited to the Contractor's Environmental Management Plan and all ADEC Permit requirements. Such material shall be

promptly removed from Government property and properly disposed of in accordance with all applicable laws and regulations.

-- End of Section --

SECTION TABLE OF CONTENTS

DIVISION 31 - EARTHWORK

SECTION 31 11 00

CLEARING AND GRUBBING

11/21

-- End of Section Table of Contents --

SECTION 31 11 00

CLEARING AND GRUBBING
11/21

PART 1 GENERAL

1.1 City Ordinances

The following Base Kodiak and city ordinance criteria must be included in the Specification as applicable for the location and conditions of Work being performed.

AKDOT STIP

BASE KODIAK SCS
KODIAK SCSSD

1.2 REFERENCES

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

CITY OF KODIAK (KODIAK)

KODIAK SCSSD	City of Kodiak Standard Construction Specifications & Standard Details - Latest Edition

U.S. DEPARTMENT OF TRANSPORTATION (DOT)

AKDOT STIP	Alaska Statewide Transportation Program

U.S. COAST GUARD BASE KODIAK (BASE KODIAK)

BASE KODIAK SCS	U.S. Coast Guard Base Kodiak Standard Construction Specifications, Latest Edition

1.3 SUBMITTALS

Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES: None

1.4 DELIVERY, STORAGE, AND HANDLING

Deliver materials to the Project Site, and handle in a manner which will maintain the materials in their original manufactured or fabricated condition until ready for use.

PART 2 PRODUCTS

2.1 MATERIALS

2.1.1 Tree Wound Paint

Use bituminous based paint from standard manufacture specially formulated for tree wounds.

PART 3 EXECUTION

3.1 PREPARATION

3.1.1 Protection

3.1.1.1 Roads and Walks

Keep roads and walks free of dirt and debris at all times.

3.1.1.2 Trees, Shrubs, and Existing Facilities

Provide protection in accordance with Section 01 57 19 TEMPORARY ENVIRONMENTAL CONTROLS.

3.1.1.3 Utility Lines

Protect existing utility lines that are indicated to remain from damage. Notify the Contracting Officer immediately of damage to or an encounter with an unknown existing utility line. The Contractor is responsible for the repair of damage to existing utility lines that are indicated or made known to the Contractor prior to start of clearing and grubbing operations. When utility lines which are to be removed are encountered within the area of operations, notify the Contracting Officer in ample time to minimize interruption of the service. Refer to Section 01 30 00 ADMINISTRATIVE REQUIREMENTS and Section 01 57 19 TEMPORARY ENVIRONMENTAL CONTROLS for additional utility protection.

3.2 CLEARING

Clearing consists of the felling, trimming, and cutting of trees into sections and the satisfactory disposal of the trees and other vegetation designated for removal, including downed timber, snags, brush, and rubbish occurring within the areas to be cleared. Clearing also includes the removal and disposal of structures that obtrude, encroach upon, or otherwise obstruct the Work. Cut off flush with or below the original ground surface trees, stumps, roots, brush, and other vegetation in areas to be cleared, except such trees and vegetation as may be indicated or directed to be left standing. Trim dead branches 1-1/2 inches or more in diameter on trees designated to be left standing within the cleared areas and trim all branches to the heights indicated or directed. Neatly cut

close to the bole of the tree or main branches, limbs and branches to be trimmed. Paint, with an approved tree-wound paint, cuts more than 1-1/2 inches in diameter.

3.2.1 Tree Removal

Where indicated or directed, trees and stumps that are designated as trees shall be removed from areas outside those areas designated for clearing and grubbing. This Work includes the felling of such trees and the removal of their stumps and roots as specified in paragraph GRUBBING. Dispose of trees as specified in paragraph DISPOSAL OF MATERIALS.

3.2.2 Grubbing

Grubbing consists of the removal and disposal of stumps, roots larger than 3 inches in diameter, and matted roots from the designated grubbing areas. Remove material to be grubbed, together with logs and other organic or metallic debris not suitable for foundation purposes, to a depth of not less than 18 inches below the original surface level of the ground in areas indicated to be grubbed and in areas indicated as construction areas under this Contract, such as areas for buildings, and areas to be paved. Fill depressions made by grubbing with suitable material and compact to make the surface conform with the original adjacent surface of the ground.

3.3 DISPOSAL OF MATERIALS

Dispose of excess materials in accordance with the approved solid waste management permit and include those materials in the solid waste management report.

All wood or wood like materials, except for salable timber, remaining from clearing, prunning or grubbing such as limbs, tree tops, roots, stumps, logs, rotten wood, and other similar materials shall become the property of the Contractor and disposed of as specified. All non-saleable timber and wood or wood like materials remaining from timber harvesting such as limbs, tree tops, roots, stumps, logs, rotten wood, and other similar materials shall become the property of the Contractor and disposed as specified.

-- End of Section --

U.S. Coast Guard Base Kodiak
Repair Electrical Equipment at
N11 POL Facility
Kodiak, Alaska
Project No.: 8405333

Final Construction Documents

For:
USCG FDCC DET Seattle
915 Second Avenue, RM 2664
Seattle, WA 98174

September 27, 2021

Design Alaska

Specifications

PART 1 GENERAL

1.1 SCOPE: SECTION 23 82 39 - UNIT HEATERS

A. This Section covers selection and installation of hydronic unit heaters.

1.2 SUBMITTALS

A. Manufacturer's Data:

1. Provide a separate complete submittal for each unit even though some accessory items may be repeated in several packages.

2. Catalog data and selections for equipment and accessory items.

3. Selection with drawings and details indicating dimensions and compliance with capacity/condition requirements indicated.

4. Coil Data.

5. Fan data indicating capacity.

6. Wiring diagram.

7. Electrical data.

B. Sample: Enclosure finish and color.

PART 2 PRODUCTS

2.1 FIXED DISCHARGE ELECTRIC UNIT HEATERS

A. Basis of design: Trane UHWA, Dayton 3UF60.

B. Casing:

1. Fabricated of die-formed, heavy gauge steel and finished in high gloss, baked enamel. A large, hinged access door shall extend the width of the heater and locked in position by quarter-turn fasteners. Heater and supply wiring diagram shall be permanently attached to the inside of the access door.

2. Phosphatized to prevent corrosion and finished with manufacturer's standard color baked enamel unless otherwise indicated.

C. Element:

1. Elements shall be high mass, all steel tubular finned type, copper brazed. Centrally located and installed in fixed element banks.

D. Fan and Motor:

1. Motors shall be totally enclosed, all angle industrial rated.

2. All units up to 20 kW will utilize sealed bearings to assure permanent lubrication.

3. All units over 20 kW will utilize a two-speed, permanent capacitor-type.

E. Fan Blades:

1. Fan blades shall be of the axial flow-type designed for quiet efficient operations.

2. Fan speed does not exceed 1600 RPM.

F. Wiring:

1. Designed for a single circuit, with elements, motor and control circuits subdivided with factory wired fuses to conform to the NEC and UL Standard 1025.

2. Equipped with automatic reset thermal overloads which shut down the element and motor if safe operating temperatures are exceeded.

G. Control:

1. Provide with pre-wired and installed adjustable built-in thermostat.

PART 3 EXECUTION

3.1 INSTALLATION

A. Install per manufacturer recommendations.

3.2 OPERATION

A. Units shall not have any detectable rattles, buzzes, or vibration. Sheet metal screws, adhesives, or other fastening devices or techniques shall not be used to correct shipping damage or for field modifications to eliminate rattles, buzzes, or vibrations.

END OF SECTION

PART 1 GENERAL

1.1 SCOPE: SECTION 26 05 10 - BASIC MATERIALS AND METHODS

A. This Section covers general electrical requirements for Work covered under this Division.

B. All Work and Services specifically covered under this Division is supplementary to that covered under other Divisions of these Contract Documents. The requirements of this Division, which are more stringent than that covered under other parts of these Contract Documents, apply to Work covered under this Division.

C. All incidental Work required but not specified under this Division shall comply with the Division in which it is specified.

D. Review the Drawings and Specifications of all other Divisions for additional Work under Division 26.

1.2 GENERAL REQUIREMENTS

A. Provide all work as shown on the drawings and in these specifications for a complete, safe, and functional installation. All work shall comply with the latest edition of the National Electrical Code (NEC).

B. The Contractor is responsible for providing complete and operating systems in the facility. The intention of the Contract Documents is to include all labor and materials, equipment, and transportation necessary or reasonably inferable as being necessary for the execution of the work. Where minor adjustments of the work are necessary for purposes of fabrication or installation of items, or resolution of conflicts between items within the intent of the Contract Documents, the Contractor shall make such adjustments at no added expense to the Government. Where such adjustments affect functional or aesthetic design of the work, they shall first be submitted to the Government's Representative for review and approval.

C. Obtain and pay for all permits, plan reviews, and inspections required for the work covered by this Division of the Specifications.

D. Unless otherwise noted, all materials shall be of new manufacture, and installed before expiration of their shelf life, if applicable.

E. Materials and equipment are to be those of major and reputable manufacturers with ability to render competent and thorough service through local and regional organizations capable of expeditiously providing service, parts, and assistance.

F. Materials of similar nature, style, function, purpose, and/or appearance shall be like products from the standard product line of the same manufacturer.

G. All products shall be listed and labeled by an approved national testing laboratory for their intended use and location in all cases where such products are listed and labeled. Where no product listed by an approved national testing laboratory for the application is available, provide certification of performance, function, and rating from an independent testing agency or laboratory approved by the Contracting Officer.

H. The omission of express reference to any parts, supplies, services, or facilities necessary for, or incidental to, a complete installation shall not be construed as a release from furnishing such items.

I. Verification is required of all equipment sizes and locations prior to the ordering or installation of connection materials and disconnecting equipment to ensure that the power connections are of the proper size and type, and in the proper location.

J. All materials shall be installed in a neat, orderly, and secure fashion, as required by these specifications and commonly recognized standards of good workmanship. The norms for execution of the work shall be in conformity with NEC Chapter 3 and the National Electrical Contractors' Association "National Electrical Installation Standards", for which the Contracting Officer's judgment shall be final.

K. Electrical equipment shall be installed in spaces that are accessible and in a manner that allows for maintenance and replacement. Entries into spaces shall allow for the passage of equipment.

L. Salvage or disposal of removed items shall be as noted on the Drawings or as directed by the Contracting Officer.

1.3 DRAWINGS

A. Unless otherwise indicated, drawing symbols conform to the applicable standards of ANSI. The Drawings (or Contract Drawings) rely heavily upon symbolic representation of the features shown, and represent exact details only so far as indicated.

1. The Drawings are diagrammatic and are not intended to show exact details.

2. Dimensions scaled from the Drawings may vary due to tracing tolerances, printing distortion, field conditions, field changes, and other factors. For these reasons, it shall be the Contractor's responsibility to field verify dimensions that pertain to his work. The Contractor shall make minor relocations where necessary to resolve conflicts or present a uniform appearance. The drawings show exact location of electrical features only where specifically dimensioned.

3. The Electrical Contractor shall review the Contract Documents of the other trades on the Project, and shall coordinate the installation of electrical features with the work of all other trades.

4. Provide fixtures, devices, equipment, conduit, conductors, and accessories indicated on the Drawings unless it is specifically indicated that the fixture, device, equipment, conduit, conductor, or accessory is existing.

1.4 REPAIR OF EXISTING FEATURES

A. Where existing or previously completed building surfaces or other features must be cut, penetrated, or otherwise altered for the installation of electrical features, such work shall be carefully laid out and performed, and any subsequent patching or repairs that it necessitates shall be performed by skilled mechanics of the trades involved. All cutting and patching shall be done with materials similar in appearance, function, and rating to those in the existing construction. The patch shall not be noticeable and the contractor shall take such steps as painting any wall disturbed from corner to corner, top to bottom.

1.5 SERVICE CHARACTERISTICS

A. The building service shall be 120/240 volts, 3 wire, 1 phase, 60 Hertz alternating current; derived from a utility furnished pad mounted transformer. Contractor shall provide service and distribution systems as required by the Contract Drawings and further specified herein.

1.6 FIRESTOPPING

A. Electrical raceways or other features when penetrating building surfaces or walls which have fire ratings shall be securely sealed to the surrounding surface with 3M Fire Barrier Caulk No. CP25, Fire Barrier Putty No. 303, intumescent coatings or as elsewhere described in these Specifications for the general construction.

1.7 CLASSIFIED AREAS

A. Electrical raceways or circuit conductors routed between an unclassified area and a classified area shall be provided with appropriate conduit seals compliant with NEC criteria.

1.8 PROTECTION AND CLEANING

A. All electrical equipment shall, during the entire duration of construction work, be protected against water, dust, debris, overspray or any other contamination, whether environmental in origin or as a result of construction work.

B. All construction dust, debris, overspray, scrap and surplus materials, etc. resulting from this work shall be cleared away, leaving the installation in completely clean condition.

1.9 SUBMITTALS

A. Prior to the purchase of any materials or equipment, the Contractor shall submit for acceptance data completely describing items intended for use in the work. This data shall include the manufacturer and identifying number or nomenclature; the manufacturer's published data as to size, capacity, power requirements and dimensions, shop drawings; and such other information as necessary to properly describe each item. Catalog cuts fulfilling these requirements will be considered appropriate for this application where selection of the type of equipment is clearly identified within the submittal.

B. Informational submittals include:

1. Raceways.

2. Conductors.

3. Junction boxes, outlet boxes / covers.

4. Conduit seals.

5. Switches and receptacles / covers.

C. Action submittals include:

1. Panelboards including complement of circuit breakers.

2. Meter/Main Disconnects.

3. Light fixtures and mounting devices.

D. Items which do not require submittals include but are not limited to:

1. Tapes, circuit connectors, cable tags, labels, fastening devices, construction struts and other items generally considered commodity items within a typical electrical equipment installation.

1.10 OPERATION AND MAINTENANCE MANUALS

A. The Contractor shall submit for review copies of Operation and Maintenance Manuals hereinafter called "O & M Manuals" for the project as specified herein or within other sections of the specifications. These manuals shall be bound as specified for Submittals, and shall include:

1. All information covered by the final accepted submittals, modified as necessary to reflect the final as-built condition.

2. Complete listings of repair and replacement parts for all equipment, and names and addresses of the suppliers from which the equipment was obtained.

3. Complete listing of all equipment which may require periodic servicing, with recommended schedules and complete instructions for performing said servicing. Service instructions shall include complete English-language narrative descriptions and illustrations as necessary to thoroughly describe all service operations. Illustrations with just multi-language skeleton instructions are not acceptable.

PART 2 PRODUCTS

2.1 RACEWAYS

A. Minimum size for all raceways shall be 3/4-inch diameter.

B. Raceways shall be of types and characteristics recognized by the NEC.

C. Materials:

1. Rigid Steel Conduit shall be hot-dip galvanized, Schedule 40 Dimensions with smooth interior. Basis of design: Allied Tube & Conduit, J & L, Triangle, Western Tube & Conduit, Youngstown.

a. Rigid Steel Conduit shall be made up with threaded fittings only.

2. Intermediate Metal Conduit shall be hot-dip galvanized steel, with smooth interior. Basis of design: Allied Tube & Conduit, Cyprus, Western Tube & Conduit.

a. IMC shall be made up with threaded fittings only.

3. Electrical Metallic Tubing shall be hot-dip galvanized, with smooth interior. Basis of desigh: Allied Tube & Conduit, J & L, Triangle, Western Tube & Conduit, Youngstown.

   a. EMT shall be made up with concrete-tight compression fittings. Connectors shall have insulated throats.

   b. All EMT conduit used with fire alarm system wiring shall be factory pre-painted with a bright red topcoat. Basis of design: Allied Fire Alarm Red. Conduit may be field painted with a bright red topcoat.

4. Liquid-tight Flexible Metal Conduit ("sealtite" flex or "LT flex") shall have a flexible galvanized steel spiral core with a flexible outer jacket of PVC, resistant to water, oil, grease, corrosive agents, and abrasion. Basis of design: Carol, Anaconda.

   a. Fittings for liquid-tight flexible conduit shall be steel or malleable iron of a type incorporating a threaded grounding cone, nylon or plastic compression ring, and a tightening gland, providing a low resistance ground connection. All throats shall be insulated.

   b. Exterior or other extreme temperature applications of Liquid Flexible Metal Conduit shall have temperature rating of minus 67 degrees F to plus 220 degrees F, Basis of design: Liquatite “ATLA”.

5. HDPE conduit with smooth interior with minimum Schedule 40 thickness walls, Carlon UL Listed HDPE or equivalent products by Dura-Line.

6. Use of manufactured transition fittings and couplings between differing types of raceway systems (i.e., transition from RSC to HDPE) shall be listed for this purpose. Couplings within the raceway system in below grade applications shall be configured and connected so these joints are watertight.

2.2 WIRES AND CABLES

A. All wire and cable shall conform to the latest specifications of the NEC and/or the ICEA. Basis of design: American Insulated Wire, BICC General, Carol Cable, Excel Wire & Cable, Okonite, Southwire, Superior Essex.

B. Conductors: All conductors shall be copper, except as otherwise noted. Conductors No. 10 AWG and smaller may be solid or stranded. Conductors No. 8 AWG or larger shall be stranded.

K. Conduit joints shall be cut square, reamed smooth, and cleaned of burrs, cutting oil, cuttings, and other foreign materials prior to assembly. Ends shall be capped to prevent entrance of foreign materials during construction.

L. Bends, offsets, and saddles shall be made with factory elbows and fittings, or field-made with approved benders, to not less than NEC-required radii.

M. Where connecting HDPE conduits to other types of conduits is required (i.e. HDPE to RSC), the conduit shall be joined by listed products specifically designed for this purpose.

3.2 WIRING AND CABLES

A. Branch circuit conductors shall be color-coded by factory pigmentation of the insulation. Larger conductors may be color-coded by wrapping the ends with colored tape in all enclosures, except that white and green conductors may never be phase-taped for any use other than neutral and ground, respectively. Color-coding shall be consistent throughout the entire installation and shall be as follows:

Conductor	120/240
Phase A	Black
Phase B	Red
Neutral	White
Ground	Green

B. Branch circuit conductors shall be No. 12 AWG copper, except for the following:

1. On 120 volt, 20 amp circuits over 70 feet (actual measured one-way distance) from panel to the last receptacle or middle of the lighting string (as appropriate), use No. 10 conductors for the entire circuit.

2. Where branch circuit conductor sizes are indicated on the drawings, they shall take precedence over the foregoing. Where field conditions dictate circuit routings that increase conductor lengths beyond what would be expected from the layout shown on the drawings, they shall be submitted to the Contracting Officer for acceptance.

C. All conductor connections shall be made up securely with solderless pressure connectors such as setscrew lugs, split-bolts, wirenuts, "wingnuts", or suitable crimp fittings. Live-spring connectors which cannot be tightened to a point where conductor deformation occurs (such as "Scotchloks") are not permitted. Each wirenut-type connector shall not contain more than four conductors, regardless of size.

3. Electrical Metallic Tubing shall be hot-dip galvanized, with smooth interior. Basis of desigh: Allied Tube & Conduit, J & L, Triangle, Western Tube & Conduit, Youngstown.

   a. EMT shall be made up with concrete-tight compression fittings. Connectors shall have insulated throats.

   b. All EMT conduit used with fire alarm system wiring shall be factory pre-painted with a bright red topcoat. Basis of design: Allied Fire Alarm Red. Conduit may be field painted with a bright red topcoat.

4. Liquid-tight Flexible Metal Conduit ("sealtite" flex or "LT flex") shall have a flexible galvanized steel spiral core with a flexible outer jacket of PVC, resistant to water, oil, grease, corrosive agents, and abrasion. Basis of design: Carol, Anaconda.

   a. Fittings for liquid-tight flexible conduit shall be steel or malleable iron of a type incorporating a threaded grounding cone, nylon or plastic compression ring, and a tightening gland, providing a low resistance ground connection. All throats shall be insulated.

   b. Exterior or other extreme temperature applications of Liquid Flexible Metal Conduit shall have temperature rating of minus 67 degrees F to plus 220 degrees F, Basis of design: Liquatite “ATLA”.

5. HDPE conduit with smooth interior with minimum Schedule 40 thickness walls, Carlon UL Listed HDPE or equivalent products by Dura-Line.

6. Use of manufactured transition fittings and couplings between differing types of raceway systems (i.e., transition from RSC to HDPE) shall be listed for this purpose. Couplings within the raceway system in below grade applications shall be configured and connected so these joints are watertight.

2.2 WIRES AND CABLES

A. All wire and cable shall conform to the latest specifications of the NEC and/or the ICEA. Basis of design: American Insulated Wire, BICC General, Carol Cable, Excel Wire & Cable, Okonite, Southwire, Superior Essex.

B. Conductors: All conductors shall be copper, except as otherwise noted. Conductors No. 10 AWG and smaller may be solid or stranded. Conductors No. 8 AWG or larger shall be stranded.

C. Insulation Types:

1. Branch and feeder circuit conductors will consist of conductors run in conduit and raceways.

a. Branch circuit conductors in raceways shall be 600 volt insulated, and unless otherwise noted on the drawings, shall have the following insulation types:

1) Heated indoor spaces - THHN/THWN or XHHW.

2) In conduit, outdoors or other cold locations – XHHW.

2. Feeder conductors shall have type XHHW insulation.

3. Nylon-jacketed conductors such as types THHN or THWN shall not be used in any location subjected to ambient temperatures below 32 degrees F.

2.3 OUTLET BOXES

A. Boxes shall be deep-type (2-1/8 inch nominal) unless space limitations or drawing notes require shallower boxes.

1. Fixture outlet boxes for use with concealed raceway systems shall be 4-11/16-inch octagonal or square, galvanized sheet Steel.

2. Boxes for wall-mounted devices with concealed raceways shall be galvanized sheet Steel, 4-11/16 inches square for up to two devices, and solid ganged boxes for more than two devices.

3. Cast boxes with threaded hubs, external mounting brackets or holes, and gasketed covers shall be used in the following locations:

a. Exterior locations.

b. Wet or Damp locations.

c. Mechanical rooms and pump stations, etc., where subject to physical damage.

2.4 WIRING DEVICES AND PLATES

A. Cover plates: Cover plates for devices in surface-mounted boxes shall be of pressed or machined metal construction, specifically designed to suit the boxes. Where cover plates are installed outdoors they shall be rated for environment and weatherproof while in use per NEC.

B. Terminals: Wiring devices shall have binding-screw type terminals only. Terminals using spring pressure to secure the wire and make electrical contact are specifically forbidden.

C. Manufacturers: Basis of design: Arrow-Hart, Copper, Bryant, Hubbell, Leviton, Pass & Seymour.

2.5 GROUNDING

A. All metal raceways, enclosures, other electrical equipment and non-electrical equipment such as tanks and dispenser platforms that may pick up harmful potentials from the electrical system, shall be securely bonded and grounded as required by the NEC and the drawings.

B. All grounding conductors and bonding jumpers shall be copper, sized according to the NEC or as noted on the Drawings. Separate equipment grounding conductors shall be green insulated where run with branch circuits and feeders.

C. Ground rods shall be 3/4-inch by 10 feet-0 inches, except where longer rods are called for on the Drawings, in which case they shall be 3/4-inch diameter sectional type, length as indicated. All ground rods shall be copper-coated steel, Basis of design: Copperweld.

D. Provide a separate, insulated equipment grounding conductor inside all feeder and branch circuit conduits.

2.6 METER SOCKET / MAIN DISCONNECT

A. (3-Phase service) Meter socket shall be CT rated, 13 terminal for outdoor use, surface mounted, with test switch perch and prewired test switches, NEMA 3R construction. Basis of design: Circle AW. Meter socket shall comply with all Serving Utility requirements. Main disconnect circuit breaker shall be provided within the same enclosure as the meter socket with the appropriate barrier between these sections. Meter provided by serving utility.

2.7 PANELBOARDS

A. Branch panelboards shall be of the bolt-on circuit breaker type, with the following features:

1. Flush or surface mounted, as shown on the Drawings. Flush-mounted panelboards may be furnished with prime coat finish only, for jobsite finish painting. Surface-mounted panelboards shall be furnished with the factory standard paint finish.

2. Panelboard fronts shall not contain any visible screws or other fasteners. Fasteners which are designed to be wedged in place by sliding sideways with a screwdriver are specifically prohibited. Fronts shall have a lip or bracket which rests on the bottom return flange of the panel enclosure, to permit the front to be held in place with one hand while fastening. Each front shall have a hinged door with a locking latch, furnished with two keys. All locks shall be keyed alike.

3. Panelboards shall have main lugs only, unless a main circuit breaker, through-feed lugs, or subfeed lugs are noted. Lugs shall be sized to accommodate the feeder conductors shown on the Drawings.

4. Current rating of the main buses shall be as noted on the Drawings. Where a main circuit breaker size does not correspond to a factory standard bus size, the next larger standard size main buses shall be used. All bus components shall be braced to withstand fault currents of the peak magnitude corresponding to the branch circuit breaker interrupting ratings shown on the Drawings. Panelboards shall be bussed full height (including bus fingers and related hardware), to allow all available branch circuit spaces to be used.

5. Cabinets shall be nominally 20 inches wide, 5-3/4 inches deep.

6. An adequate ground bus shall be provided for all branch circuit equipment grounding conductors shown on the drawings, plus 20 percent spare.

7. Unless otherwise noted, multi-section panelboards shall have equal quantity of circuit positions in each section, and equal size enclosures for each section.

B. BRANCH CIRCUIT BREAKERS

1. Panelboards shall be furnished with bolt-on branch circuit breakers conforming to the quantity, size, number of poles, and interrupting ratings shown on the panel schedule(s). Branch circuit breakers shall be installed in the exact circuit positions shown on the panel schedule(s), unless otherwise accepted by the Contracting Officer.

2. Where GFI breakers are called for, they shall have a ground fault current trip level of 5mA (or 30 mA for dedicated heating cables), a "test" button on the front, and trip circuitry essentially immune to nuisance tripping due to spurious influences such as RF noise.

2.8 LIGHT FIXTURES

A. Provide luminaires as indicated on the drawings. Provide luminaires complete with lumen outputs, distribution patterns, of number, type and wattage indicated. Details, shapes and dimensions are indicative of the general type desired, but are not intended to restrict selection to luminaires of a particular manufacturer. Luminaires of similar designs, light distribution and brightness characteristics, and of equal finish and quality may be submitted.

B. LED solid state elements shall be inclusive of the fixture and not require periodic replacement. When replacements are required the fixture shall allow the replacement of the solid state lighting elements (LED's), the associated frequency generators, power couplers and other related components required to refresh the fixture.

2.9 UNDERGROUND RACEWAY SYSTEMS

A. BEDDING MATERIAL

1. Underground raceway systems shall be installed with suitable bedding material for buried cable and conduit is defined as aggregate material free from organic material, and passing a 1/4-inch screen.

B. IDENTIFYING TAPE

1. Identifying tape shall be polyethylene plastic, yellow with black lettering for power, laid in continuous length over the entire underground installation with appropriate warning label consistent with installations within the service area.

PART 3 EXECUTION

3.1 RACEWAYS

A. All conductors shall be installed in metal raceways, or as otherwise noted on the drawings and/or specified herein.

B. Feeder Raceways - Rigid Steel Conduit (RSC) or Intermediate Metal Conduit (IMC). Electrical Metallic Tubing (EMT) may be used for indoor feeder raceways where not subject to physical damage.

C. Raceways Buried in Ground or Under Slab or Encased in Concrete - Rigid Steel Conduit (RSC) or HDPE.

1. Elbows (including bends exceeding 15 degrees), and conduit risers to above ground connections for HDPE shall be metallic. These metallic bends shall be of the type suitable for the environment in which they are to be installed.

CI. Branch Raceways - Unless otherwise shown, raceways concealed in non-concrete walls or above suspended ceilings shall be Electrical Metallic Tubing (EMT). Exposed raceways shall be surface metal raceway in finished areas, Electrical Metallic Tubing (EMT) in all other spaces.

1. In finished areas, fish conduit and cables in existing walls to conceal new conduit and cables to the maximum extent possible. Do not run conduit and cables exposed on surfaces of finished areas unless specifically approved by the Contracting Officer.

CII. Exposed raceways shall be run square with the building lines. Concealed raceways may be run in direct lines where practical.

CIII. Structural members shall not be cut, drilled, or notched for raceways or other electrical features unless specifically accepted by the Contracting Officer.

CIV. All raceways running from a warm area to a cold area shall be securely sealed inside the warm end with a silicone compound not harmful to the wire insulation, Basis of design: ductseal. Use seal-off fittings at panels if the feeder conduit enters the top of the panel and is run so as to expose it to different temperatures, such as through attic spaces.

CV. Raceways shall be installed in switchboards, panelboards, gutters, pull boxes and the like from the back of the enclosure closest to the mounting surface, to the front in a manner that will not obstruct the future installation of raceways.

CVI. Maintain a minimum 6-inch clearance between conduit and piping. Maintain 12-inch clearance between conduit and heat sources such as flues, steam pipes, heating pipes, and heating appliances.

CVII. Raceways of metal construction shall be physically and electrically continuous from enclosure to enclosure. Electrical continuity for nonmetallic conduits shall be assured by inclusion of an NEC-sized grounding conductor. For metallic conduits, it shall also be assured by making up all joints wrench-tight and free of foreign materials. Threaded conduits shall enter enclosures by means of threaded hubs or double-locknut- and bushing connections. For conduits of 1-inch trade size and larger, bushings shall be of the insulated type.

K. Conduit joints shall be cut square, reamed smooth, and cleaned of burrs, cutting oil, cuttings, and other foreign materials prior to assembly. Ends shall be capped to prevent entrance of foreign materials during construction.

L. Bends, offsets, and saddles shall be made with factory elbows and fittings, or field-made with approved benders, to not less than NEC-required radii.

M. Where connecting HDPE conduits to other types of conduits is required (i.e. HDPE to RSC), the conduit shall be joined by listed products specifically designed for this purpose.

3.2 WIRING AND CABLES

A. Branch circuit conductors shall be color-coded by factory pigmentation of the insulation. Larger conductors may be color-coded by wrapping the ends with colored tape in all enclosures, except that white and green conductors may never be phase-taped for any use other than neutral and ground, respectively. Color-coding shall be consistent throughout the entire installation and shall be as follows:

Conductor	120/240
Phase A	Black
Phase B	Red
Neutral	White
Ground	Green

B. Branch circuit conductors shall be No. 12 AWG copper, except for the following:

1. On 120 volt, 20 amp circuits over 70 feet (actual measured one-way distance) from panel to the last receptacle or middle of the lighting string (as appropriate), use No. 10 conductors for the entire circuit.

2. Where branch circuit conductor sizes are indicated on the drawings, they shall take precedence over the foregoing. Where field conditions dictate circuit routings that increase conductor lengths beyond what would be expected from the layout shown on the drawings, they shall be submitted to the Contracting Officer for acceptance.

C. All conductor connections shall be made up securely with solderless pressure connectors such as setscrew lugs, split-bolts, wirenuts, "wingnuts", or suitable crimp fittings. Live-spring connectors which cannot be tightened to a point where conductor deformation occurs (such as "Scotchloks") are not permitted. Each wirenut-type connector shall not contain more than four conductors, regardless of size.

D. Use compression type connectors for copper wire splices and taps, #6 AWG and larger. Utilize heat shrink tubing of the proper voltage rating for uninsulated conductors and connectors.

E. Thoroughly clean wires before installing lugs and connectors.

F. Make splices, taps and terminations to carry full ampacity of conductors without perceptible temperature rise.

G. Terminate spare conductors with wire nuts.

H. Where stranded conductors are used, their ends shall be twisted and "tinned" with solder prior to connection, or else terminated with crimp-on connectors (Basis of design: T & B Sta-Kon), set screw lugs, box lugs, or self-lifting pressure terminals.

I. Flexible cords shall be connected to equipment, fixtures, boxes, or other enclosures only by means of cord-grip bodies or other strain-relief fittings specifically designed for the purpose. NM cable clamps are not permitted for this use.

J. Where conductors or their connectors are to be connected to metal surfaces, the surface shall first be scraped free of any paint, oxide, or other non-conductive substances. Where there is a possibility of corrosion due to moisture or other cause, a conductive corrosion inhibitor shall be used between the conductor and the metal surface.

K. Conductors shall be pulled into raceways only by constant-tension pulling methods. Where necessary, wire-pulling lubricants of a type that is not harmful to conductor insulation and will not harden shall be used.

L. Completely and thoroughly swab raceway system before installing conductors.

M. Neatly train and lace wiring inside boxes, equipment and panelboards.

N. All conductors shall be protected from damage. Where the conductor or insulation is damaged, the Contracting Officer may require, at no cost to the government, the replacement of the entire conductor, or the implementation of an approved repair method approved by the Contracting Officer.

3.3 METER / MAIN SERVICE DISCONNECT

A. Make arrangements with Utility Company to obtain permanent electric service to the Project.

B. Meter main service disconnect shall be located on the pole or building as noted on the drawings.

C. Provide, install and connect meter base, etc. as required by the Utility Company.

D. The furnishing, installation, and connection of the secondary service entrance conductors from the transformer terminals to the main distribution panel terminals shall be accomplished under this Division of the Specifications.

E. Secondary conductors shall be copper, type XHHW only, installed in rigid steel or intermediate steel conduit raceway to weather heads as noted on the drawings.

3.4 PANELBOARD INSTALLATION

A. Branch panelboards shall be securely fastened to the structural framing of the surrounding construction, and shall be installed plumb with the surrounding construction. Flush-mounting panelboards shall be installed with their enclosures flush with the finished wall surface.

B. Height: 6 feet to top of panelboard.

C. Provide filler plates for unused spaces in panelboards.

D. In multi-section panelboards, conductors shall directly enter the section to which they make connection, without being routed through other sections. Where this is not possible, the Owner shall be contacted for acceptance of alternate arrangements.

E. From each flush-mounted panelboard, provide a spare l inch and three spare 3/4-inch raceways stubbed into the accessible ceiling space (attic, drop ceiling, etc., as appropriate to the job) and capped. Similarly, IF the structure has an accessible crawl space or ceiling of the floor below, also provide spare 1 inch and three spare 3/4-inch raceways from each panel stubbed down into it and capped.

F. Conductors shall not be spliced in panelboards.

G. All conductors shall be routed so as to pass to the outside of the deadfront support brackets and bussing equipment, and shall be provided with a minimum of 3 inches of slack after termination in their designated location.

3.5 CIRCUIT DIRECTORIES

A. Branch panelboard doors shall have accurate typed circuit directory cards of the two-column type, with odd numbers down the left, and even numbers down the right, with numbers increasing from top to bottom. Multi-pole breakers shall be labeled with each of the single pole spaces occupied.

3.6 IDENTIFICATION OF ELECTRICAL EQUIPMENT

A. Panelboards, disconnect switches, push-buttons, selector switches, distribution gear and switches, circuit breakers, therein, and the like shall be labeled with laminated plastic labels. Lettering shall be block style, 1/4-inch tall white letters on a red background. Labels shall be secured with pop rivets or screws. Adhesive attachment is not acceptable.

1. Degrease and clean surfaces to receive nameplates.

2. Install nameplates parallel to equipment lines.

3. Labels shall be secured with pop rivets or fasteners. Adhesive attachment is not acceptable, except for labels on receptacle plates or nameplates mounted on unheated indoor surfaces with foam tape.

4. Secure nameplate to inside face of recessed panelboard doors in finished areas.

B. Terminals on strips shall be numbered with indelible markings on special strips designed for the purpose, and a diagram or typed directory shall be provided in the terminal enclosure to identify the origin, function, and destination of each conductor in the enclosure.

C. All conductors in pull or junction boxes or other enclosures shall be permanently and legibly tagged or labeled with panel and circuit numbers or other data, which clearly identifies their origin, function, and destination.

END OF SECTION